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SMALL SCALE MODEL TESTS IN
SMALL WIND AND WATER TUNNELS AT HIGH
INCIDENCE AND PITCH RATES
VOLUME II - SMALL WIND TUNNEL (ADF)
DATA BASE

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GENERAL DYNAMICS
Fort Worth Division

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April 1989

FINAL REPORT

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19 ABSTRACT (Continue on reverse if necessary and identify by block number) The force testing of small-scale models in either a small wind tunnel or a water tunnel was investigated as an inexpensive and quick means to obtain meaningful dynamic force and moment data representative of rapidly maneuvering full-scale aircraft. Force tests of flat-plate semi-span models were conducted in the General Dynamics Aerodynamic Development Facility (ADF) which is a small 14x14 in² low speed wind tunnel. Oscillatory model motions up to 48° (peak to peak) amplitude were tested at frequencies of 1 to 3 Hz. Force tests of flat and three-dimensional full span models were conducted in the General Dynamics Hydroflow Facility (HFF) which is a horizontal flow water tunnel with a 24x24 in² test section. Pitch/pulse model motions were tested for conditions similar to those tested in the					
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19. ABSTRACT (contd.)

ADF. The test velocities were 100 fps in the ADF and 0.8 fps in the HFF which yielded nominal Reynolds numbers of 0.6×10^6 and 0.06×10^6 respectively (based on root chord). Frequencies of motion in the HFF were scaled with velocity to maintain constant non-dimensional frequencies and pitch rates. Thus, frequencies for the HFF tests were nominally 0.01 and 0.03 Hz. Specific objectives of this investigation were: (1) verify static and dynamic force and moment measurements from the small scale tests with results from reliable or multiple sources; (2) determine time history effect for various frequencies, amplitudes, starting angles and peak angles; (3) evaluate the effects of test medium; (4) determine Reynolds number effects; (5) demonstrate the importance of model three-dimensionality; and (6) evaluate the effects of planform geometry variations.

This Volume II presents the data base generated from tests in the ADF. The normal force, pitching moment and rolling moment data are in plotted and tabulated form for the straked wing, 55° and 70° delta wings and $70^\circ/30^\circ$ cranked wing semi-span models. Steady results along with unsteady results for two frequencies are included for the overall incidence range of 0° to 80° . Geometric data for the models are also given.

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The small scale wind and water tunnel tests discussed in this report were sponsored by the Office of Naval Research under Contract Number N00014-85-C-0419 and performed by the Fort Worth Division of General Dynamics. The investigation spanned the period from 16 September 1985 through 15 September 1988. The program was monitored by Dr. Robert E. Whitehead, Dr. T. C. Tai and finally Dr. Spiro Lekoudis all of ONR.

The program manager and principle investigator was Dr. Atlee M. Cunningham, Jr. of the Computational Fluid Dynamics Group who was assisted by Todd Bushlow and Steve Schwoerke of the Aeroanalysis Group as well as Tim Wilson and John Mercer of the Aerospace Technology Labs.

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SUMMARY

This volume presents the data base generated from tests in the General Dynamics Aerodynamic Development Facility (ADF). This facility is a small 14x14in² wind tunnel with velocity capability ranging from 100 fps to 165 fps. Both static and dynamic data as well as model geometry are included. The normal force, pitching moment and rolling moment results are in plotted and tabulated form for the straked wing, 55° and 70° delta wings and 70°/30° cranked wing semi-span models. The static range of test incidence is from 0° to about 80° where as the dynamic range is nominally from 8° to 64°.

A discussion of the plot format used in this volume is given in Section 4.1 of Volume I of this report. Multiple conditions are shown on each plot to highlight the development of unsteady forces and moments with varying starting and peak angles for model motion at fixed frequencies. The plots all include static data for a reference. The dynamic data are represented as solid lines for positive pitch rate and dashed lines for negative pitch rate.

In Volume I, all discussions referred to nominal values of reduced frequency and non-dimensional pitch rate. The actual test velocities and frequencies are listed in Table 1 and are used in the plots and listings given in this data volume. Table 2 provides a directory for the page numbers of various plots which are keyed on the overall incidence range, which angle is held constant (ie starting or peak angle) and configuration. Table 3 provides a similar directory for listings but only refers to the incidence range and configuration.

SYMBOLS

A_m	Model Planform Area, ft^2
C_l	$M_l/(qA_ms)$, Rolling Moment Coefficient
C_m	$M_m/(qA_mC_r)$, Pitching Moment Coefficient (MAC is used for the E-7 models)
C_N	$F_N/(qA_m)$, Normal Force Coefficient
c_r	Root chord, ft
f	Frequency, Hz
F_N	Normal Force, lbs
k	$\pi fc_r/V$, Reduced Frequency
MAC	Mean Aerodynamic Chord, ft
M_l	Rolling Moment, ft-lbs
M_m	Pitching Moment, ft-lbs
q	$\rho V^2/2$, Dynamic Pressure
s	Semi-span, ft
V	Free Stream Velocity, ft/sec
α	Angle of Attack, deg
$\dot{\alpha}$	Pitch Rate, deg/sec
$\bar{\alpha}$	$\Delta \alpha k \pi/180$, Non-Dimensional Pitch Rate
α_{min}	Minimum Angle, deg
$\Delta \alpha$	Oscillatory or Pitch/Pulse Half Amplitude, deg

TABLE 1 TEST FREQUENCIES AND VELOCITIES

Configuration	Cr (in)	V (fps)	f ₁ (sec)	k ₁	f ₂ (sec)	k ₂
Straked	10.90	103.8	0.906	0.0249	2.56	0.0704
55° Delta	8.97	103.6	1.185	0.0269	3.39	0.0769
70° Delta	12.00	104.0	0.907	0.0274	2.59	0.0783
Cranked	11.98	103.8	0.909	0.0275	2.58	0.0779

$$k = \frac{2\pi f c_r}{2V}$$

TABLE 2 VOLUME II DIRECTORY FOR PLOTS

Configuration	Condition	α_{\min}	α_{\max}	Fixed α	Page
Straked	Steady	0°	60°	--	10
	Unsteady	8°	56°	α_{\min}	11
	"	16°	48°	α_{\min}	12
	"	24°	56°	α_{\min}	13
	"	8°	40°	α_{\max}	14
	"	16°	48°	α_{\max}	15
	"	8°	56°	α_{\max}	16
	"	8°	56°	--	17
55° Delta	Steady	0°	60°	--	38
	Unsteady	8°	56°	α_{\min}	39
	"	16°	64°	α_{\min}	40
	"	24°	56°	α_{\min}	41
	"	32°	64°	α_{\min}	42
	"	8°	40°	α_{\max}	43
	"	16°	48°	α_{\max}	44
	"	8°	56°	α_{\max}	45
	"	16°	64°	α_{\max}	46
	"	8°	56°	--	47
70° Delta	Steady	0°	70°	--	74
	Unsteady	8°	56°	α_{\min}	75
	"	16°	64°	α_{\min}	76
	"	24°	56°	α_{\min}	77
	"	32°	64°	α_{\min}	78
	"	8°	40°	α_{\max}	79
	"	16°	48°	α_{\max}	80
	"	8°	56°	α_{\max}	81
	"	16°	64°	α_{\max}	82
	"	8°	56°	--	83
70°/30° Cranked	Steady	0°	70°	--	108
	Unsteady	8°	56°	α_{\min}	109
	"	16°	64°	α_{\min}	110

TABLE 2 VOLUME II DIRECTORY FOR PLOTS (continued)

Configuration	Condition	α_{\min}	α_{\max}	Fixed α	Page
70°/30° Cranked	Unsteady	24°	56°	α_{\min}	111
	"	32°	64°	α_{\min}	112
	"	8°	40°	α_{\max}	113
	"	16°	48°	α_{\max}	114
	"	8°	56°	α_{\max}	115
	"	16°	64°	α_{\max}	116
	"	8°	56°	--	117

TABLE 3 VOLUME II DIRECTORY FOR LISTINGS

Configuration	Condition	α_{\min}	α_{\max}	k	Page
Straked	Steady	0°	60°	0	18
	Unsteady	8°	24°	0.0249	19
	"	8°	24°	0.0704	20
	"	8°	40°	0.0249	21
	"	8°	40°	0.0704	22
	"	8°	56°	0.0249	23
	"	8°	56°	0.0704	24
	"	16°	32°	0.0249	25
	"	16°	32°	0.0704	26
	"	16°	48°	0.0249	27
	"	16°	48°	0.0704	28
	"	24°	40°	0.0249	29
	"	24°	40°	0.0704	30
	"	24°	56°	0.0249	31
	"	24°	56°	0.0704	32
	"	32°	48°	0.0249	33
	"	32°	48°	0.0704	34
	"	40°	56°	0.0704	35
55° Delta	Steady	0°	60°	0	48
	Unsteady	8°	24°	0.0269	49
	"	8°	24°	0.0769	50
	"	8°	40°	0.0269	51
	"	8°	40°	0.0769	52
	"	8°	56°	0.0269	53
	"	8°	56°	0.0769	54
	"	16°	32°	0.0269	55
	"	16°	32°	0.0769	56
	"	16°	48°	0.0269	57
	"	16°	48°	0.0769	58
	"	16°	64°	0.0269	59

TABLE 3 VOLUME II DIRECTORY FOR LISTINGS (continued)

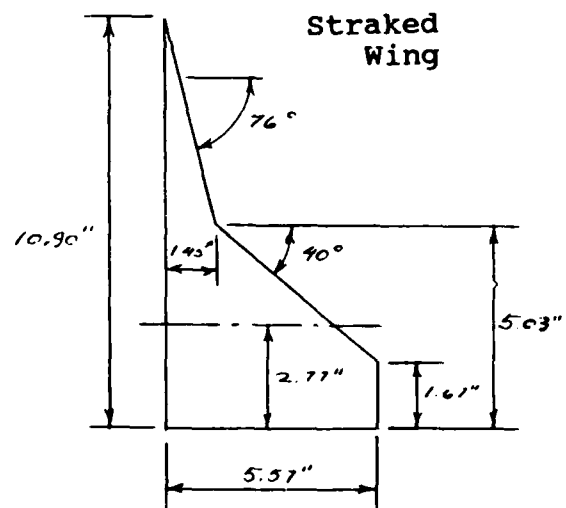
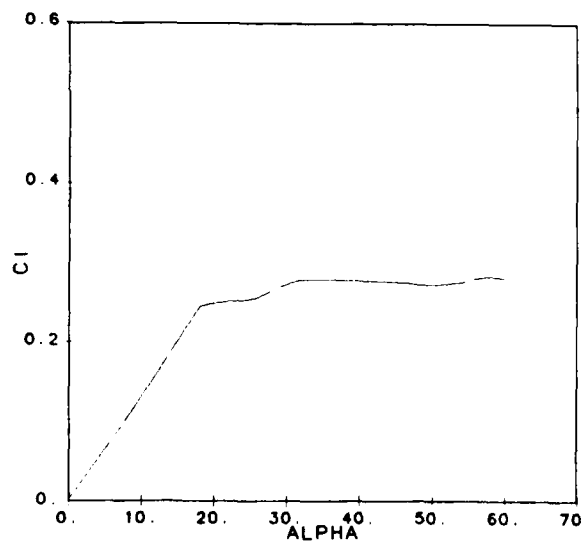
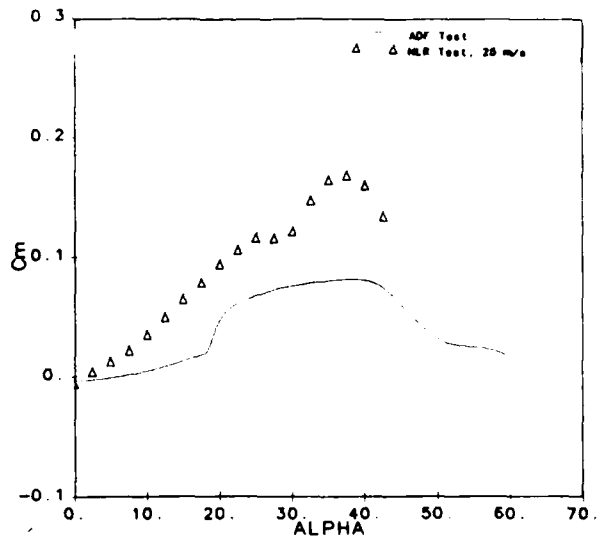
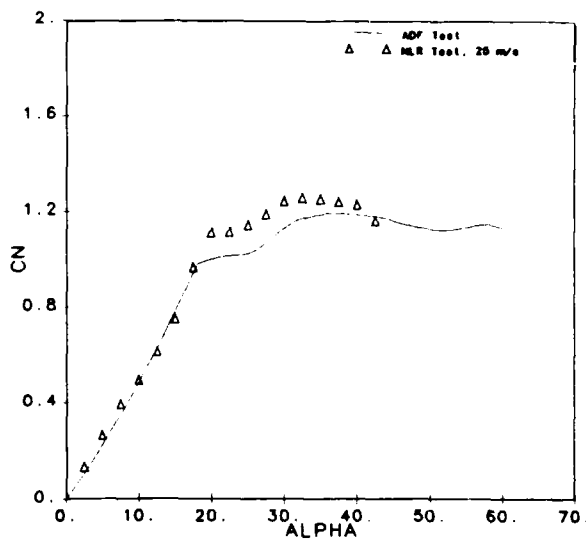
Configuration	Condition	α_{\min}	α_{\max}	k	Page
55° Delta	Unsteady	16°	64°	0.0769	60
	"	24°	40°	0.0269	61
	"	24°	40°	0.0769	62
	"	24°	56°	0.0269	63
	"	24°	56°	0.0769	64
	"	32°	48°	0.0269	65
	"	32°	48°	0.0769	66
	"	32°	64°	0.0269	67
	"	32°	64°	0.0769	68
	"	40°	56°	0.0269	69
	"	40°	56°	0.0769	70
	"	48°	64°	0.0269	71
	"	48°	64°	0.0769	72
70° Delta	Steady	0°	80°	0	84
	Unsteady	8°	24°	0.0274	85
	"	8°	24°	0.0783	86
	"	8°	40°	0.0783	87
	"	8°	56°	0.0274	88
	"	8°	56°	0.0783	89
	"	16°	32°	0.0274	90
	"	16°	32°	0.0783	91
	"	16°	48°	0.0274	92
	"	16°	48°	0.0783	93
	"	16°	64°	0.0274	94
	"	16°	64°	0.0783	95
	"	24°	40°	0.0783	96
	"	24°	56°	0.0274	97
	"	24°	56°	0.0783	98
	"	32°	48°	0.0274	99
	"	32°	48°	0.0783	100

TABLE 3 VOLUME II DIRECTORY FOR LISTINGS (continued)

Configuration	Condition	α_{\min}	α_{\max}	k	Page
70° Delta	Unsteady	32°	64°	0.0274	101
	"	32°	64°	0.0783	102
	"	40°	56°	0.0274	103
	"	40°	56°	0.0783	104
	"	48°	64°	0.0274	105
	"	48°	64°	0.0783	106
70°/30° Cranked	Steady	0°	80°	0	118
	Unsteady	8°	24°	0.0275	119
	"	8°	24°	0.0779	120
	"	8°	40°	0.0275	121
	"	8°	40°	0.0779	122
	"	8°	56°	0.0275	123
	"	8°	56°	0.0779	124
	"	16°	32°	0.0275	125
	"	16°	32°	0.0779	126
	"	16°	48°	0.0275	127
	"	16°	48°	0.0779	128
	"	16°	64°	0.0275	129
	"	16°	64°	0.0779	130
	"	24°	40°	0.0275	131
	"	24°	40°	0.0779	132
	"	24°	56°	0.0275	133
	"	24°	56°	0.0779	134
	"	32°	48°	0.0275	135
	"	32°	48°	0.0779	136
	"	32°	64°	0.0275	137
	"	32°	64°	0.0779	138
	"	40°	56°	0.0275	139
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	"	48°	64°	0.0275	141
	"	48°	64°	0.0779	142

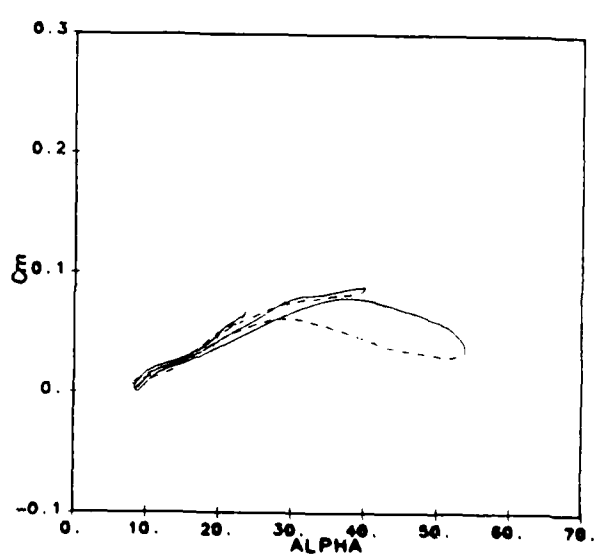
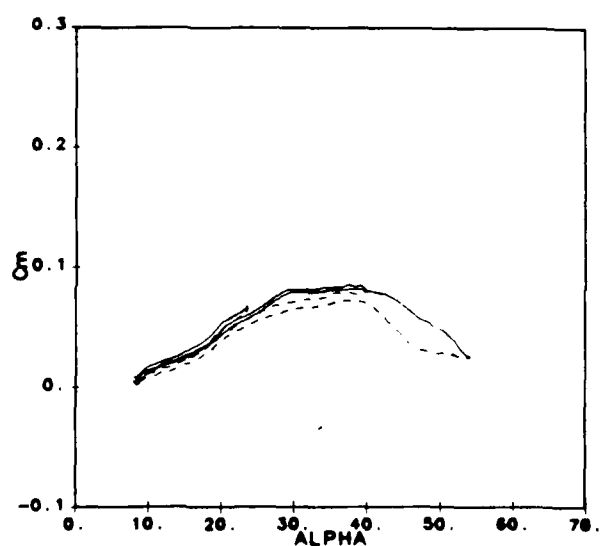
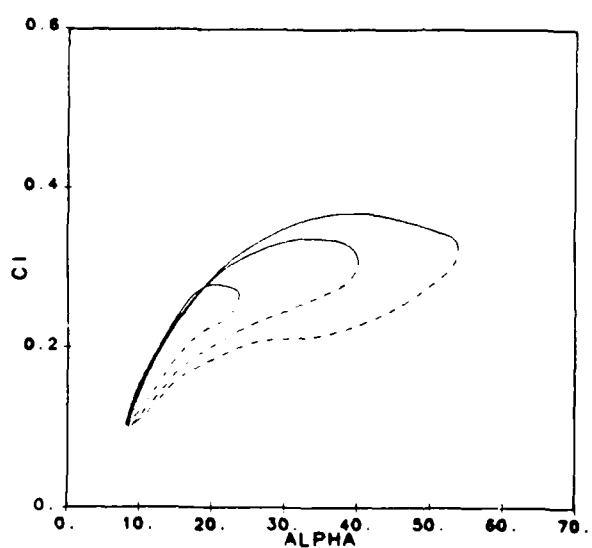
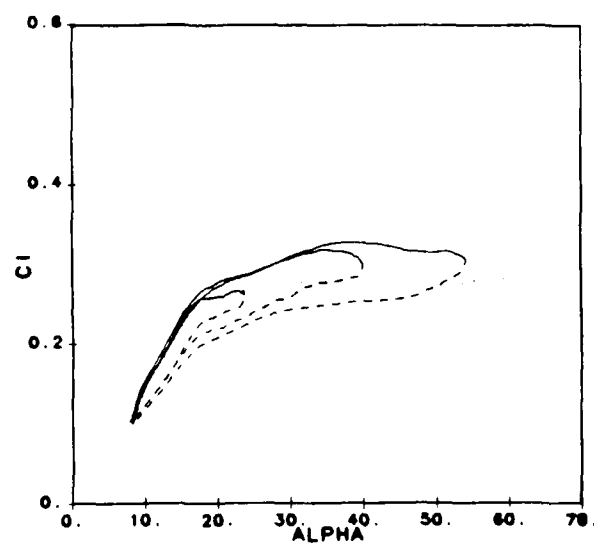
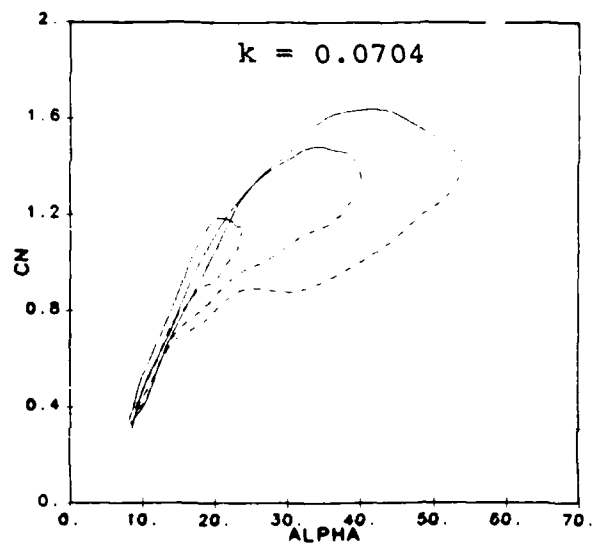
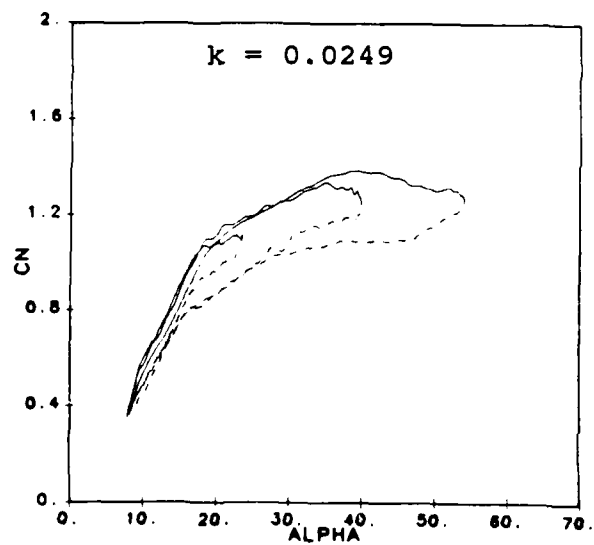
APPENDIX A

PLOTS AND LISTINGS OF THE ADF FORCE AND
MOMENT DATA FOR THE SEMI-SPAN STRAKED WING MODEL

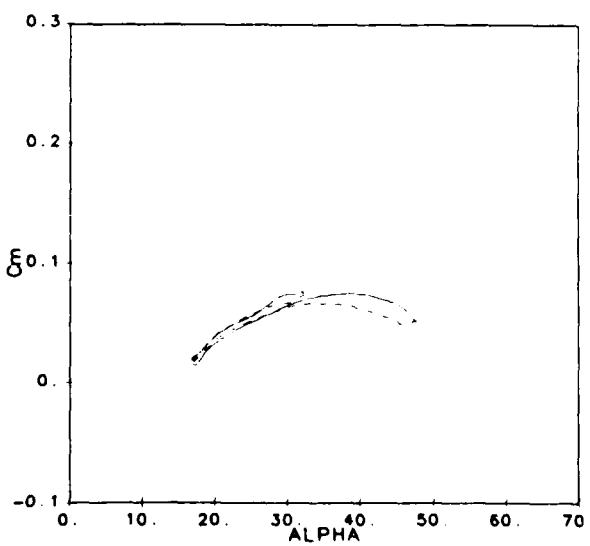
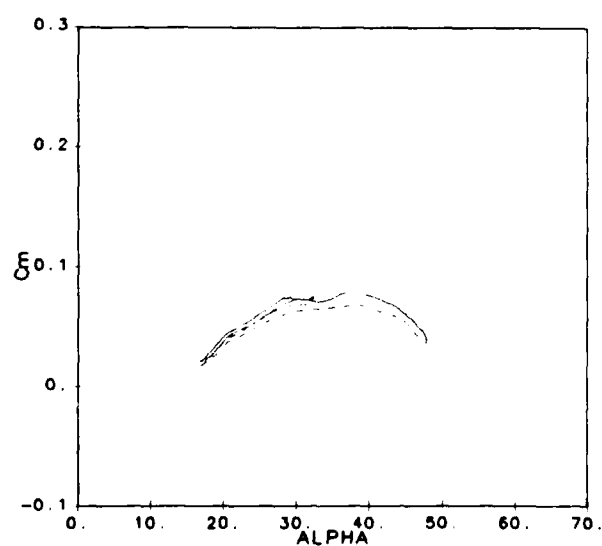
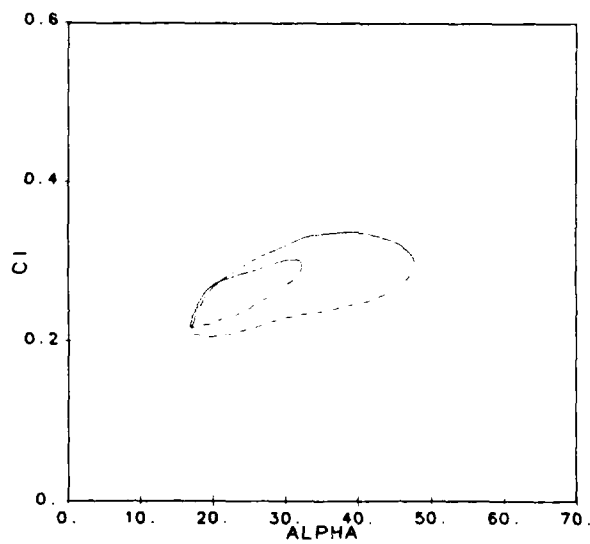
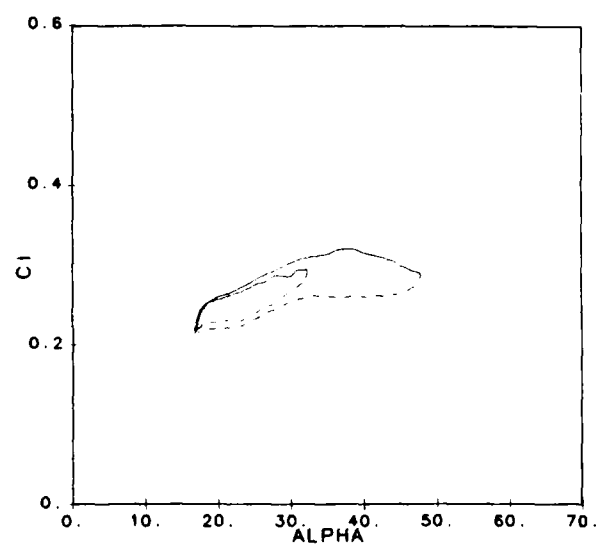
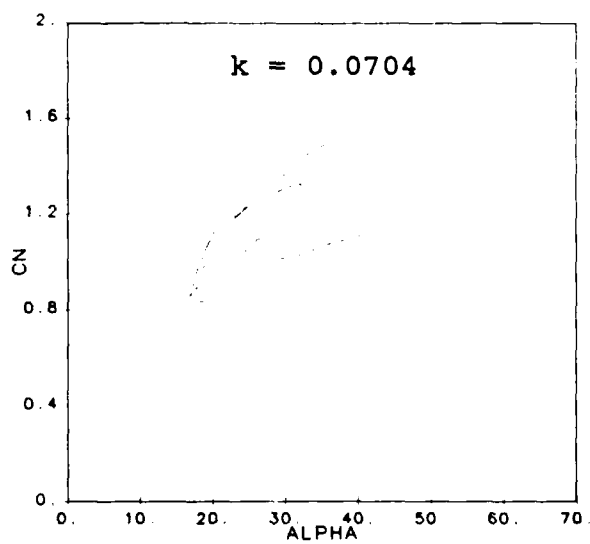
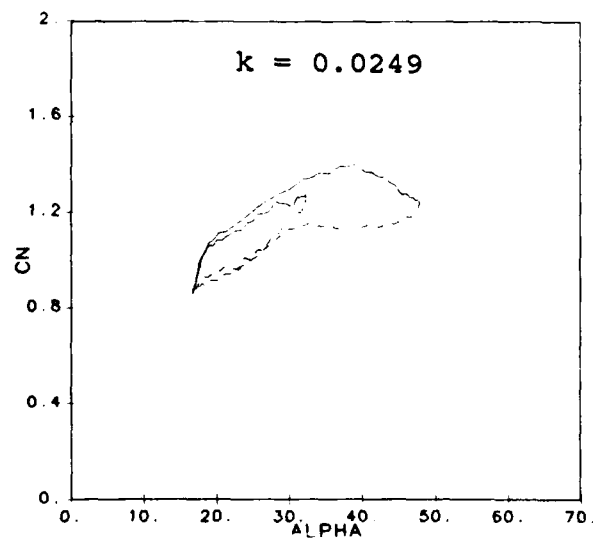


- o All Models Fabricated of 0.060" Aluminum Sheet
- o All Leading Edges Rounded, All Side and Trailing Edges Left Square (Strake was Sharp L.E.)

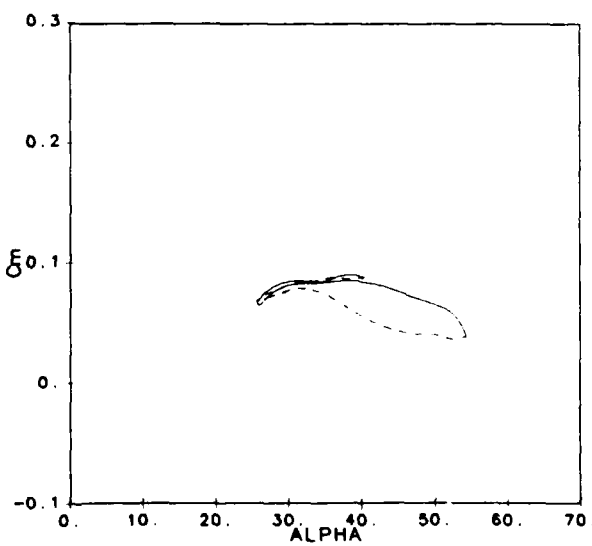
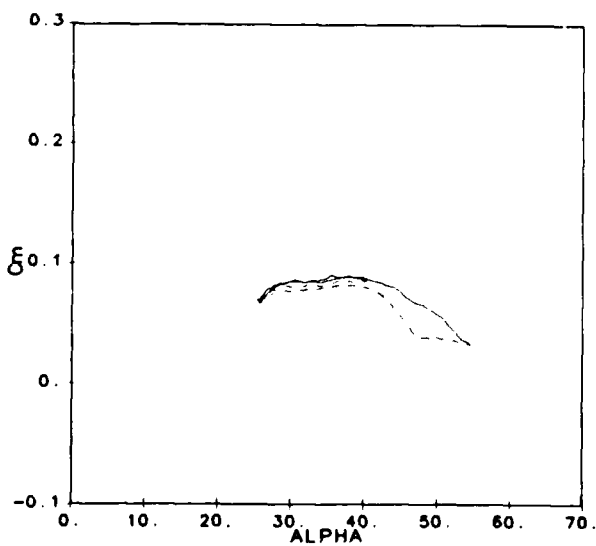
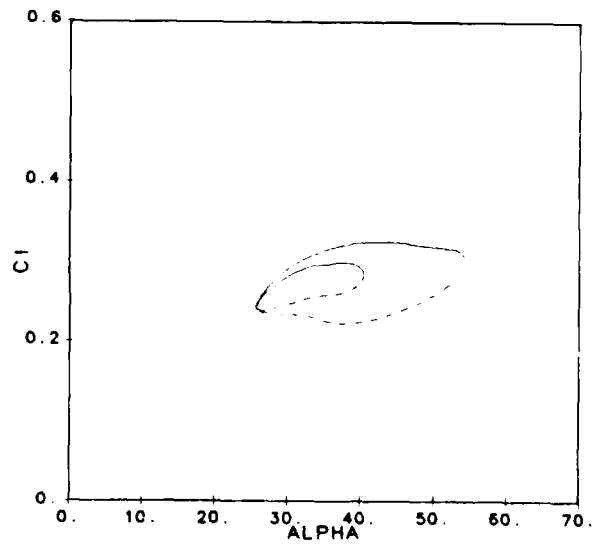
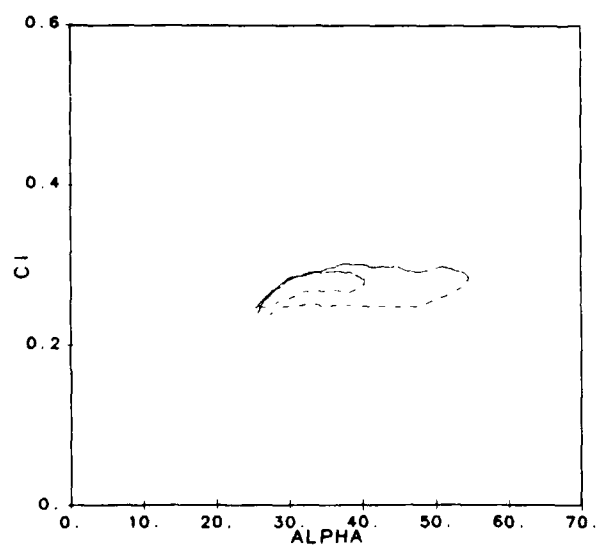
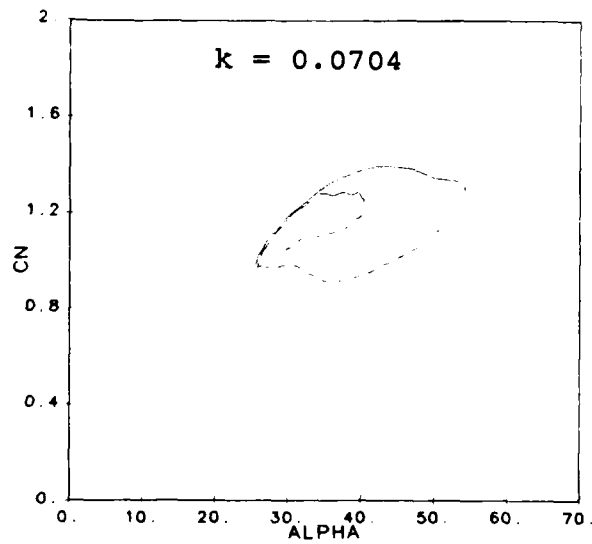
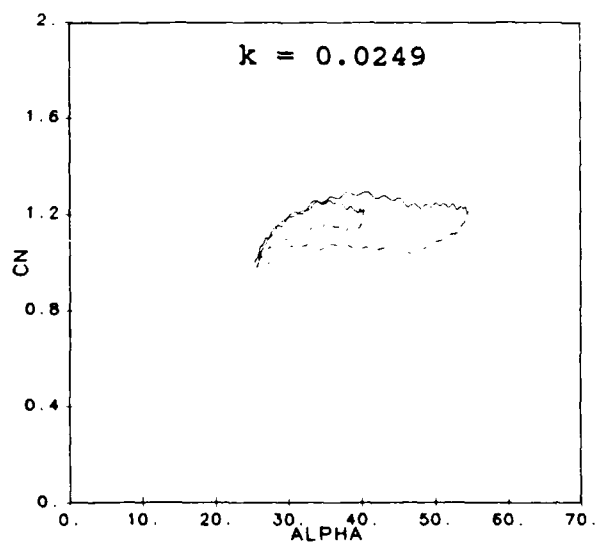
Straked Wing, Steady



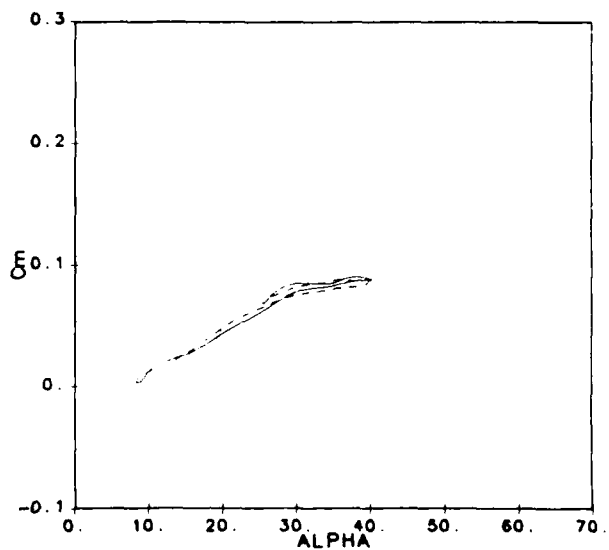
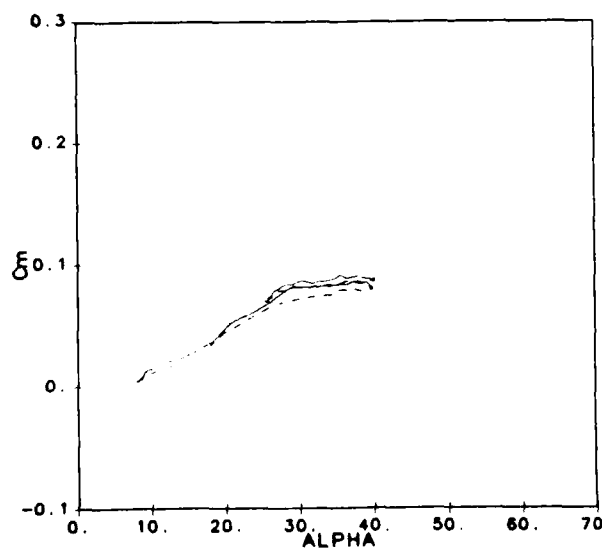
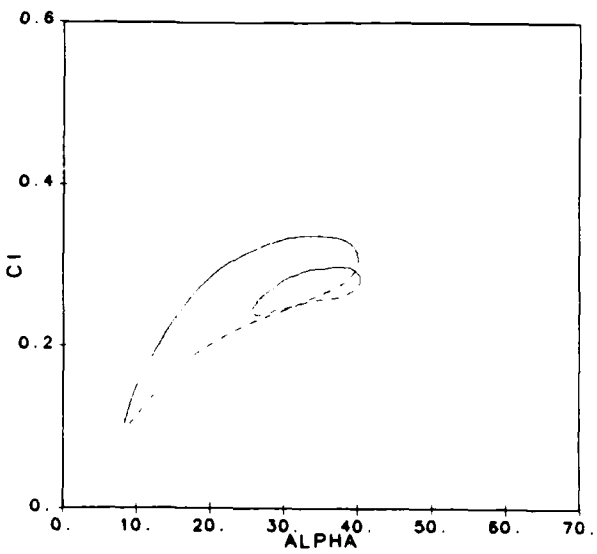
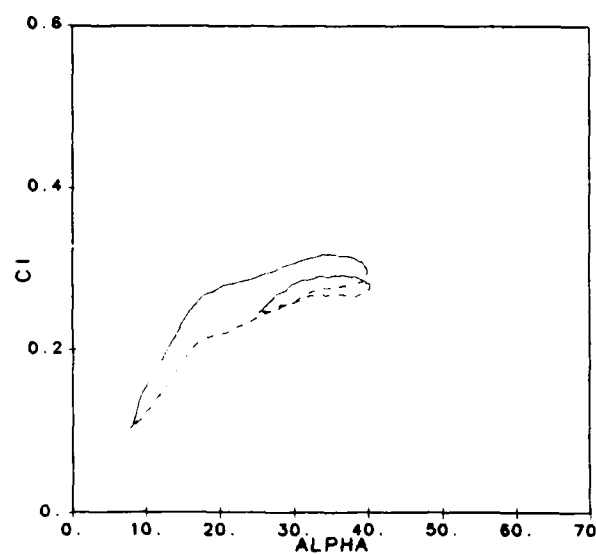
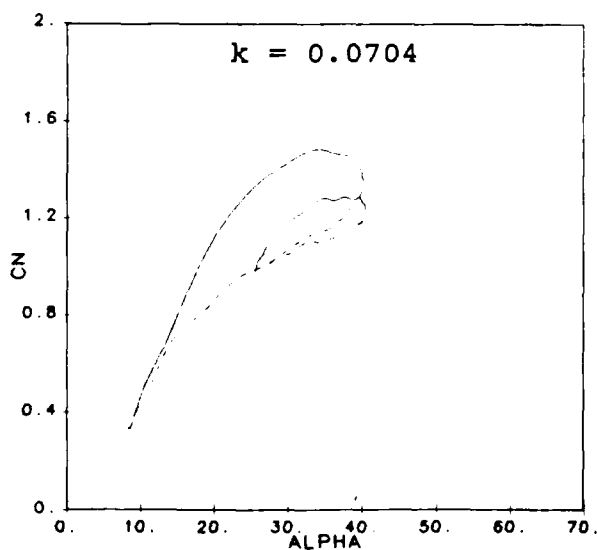
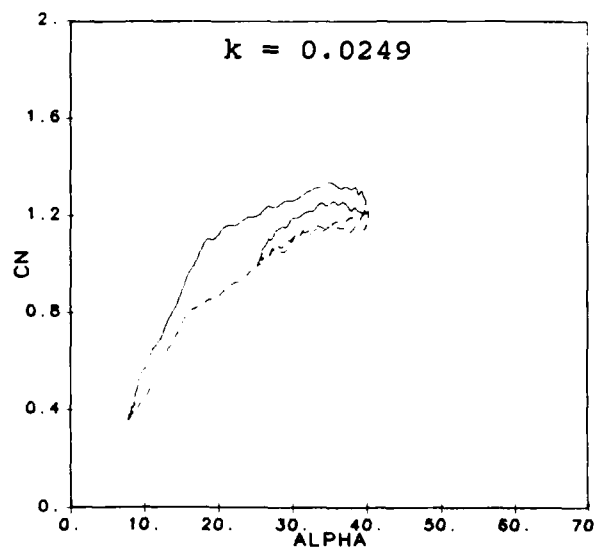
Straked Wing, Incidence = 8° to 56°



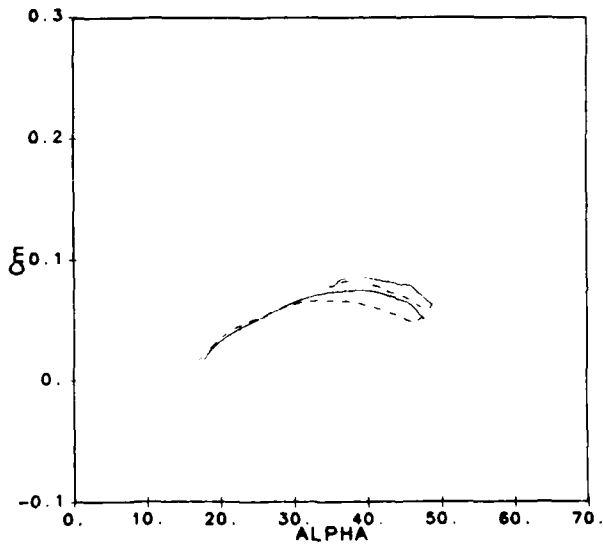
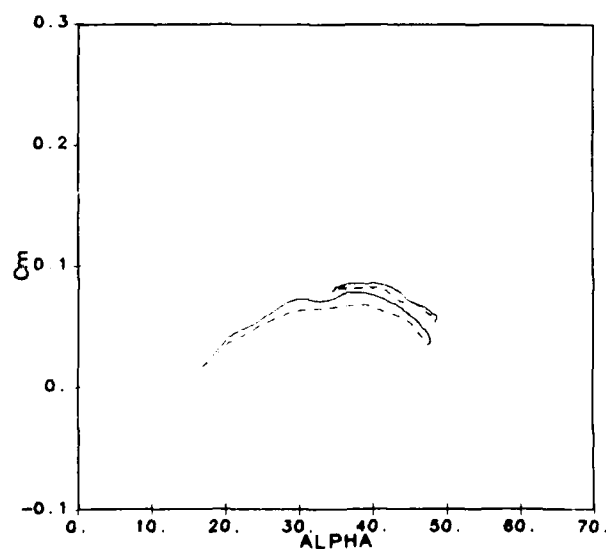
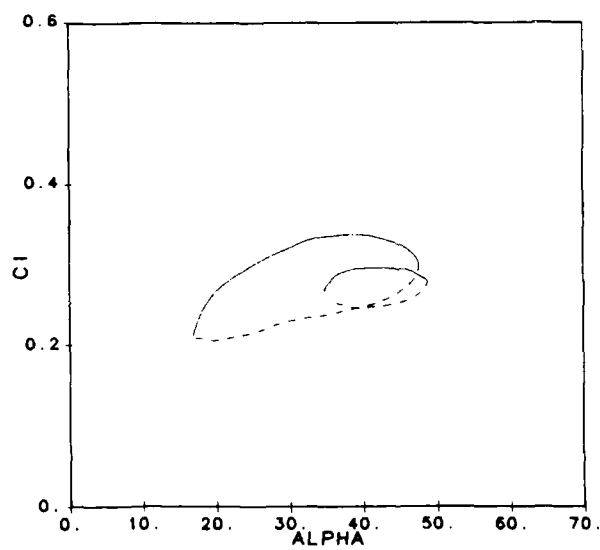
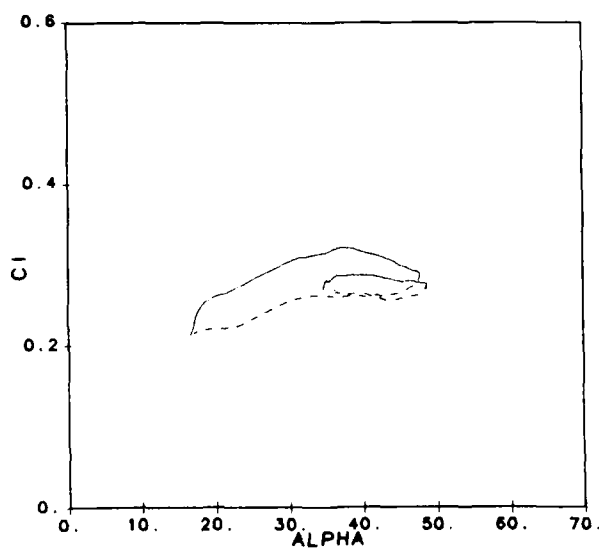
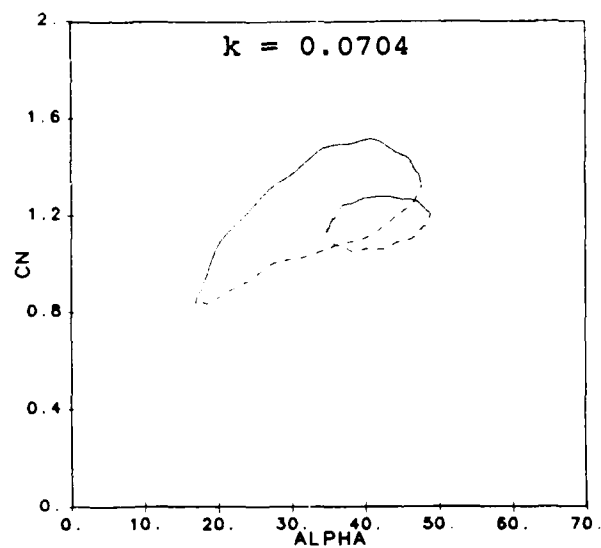
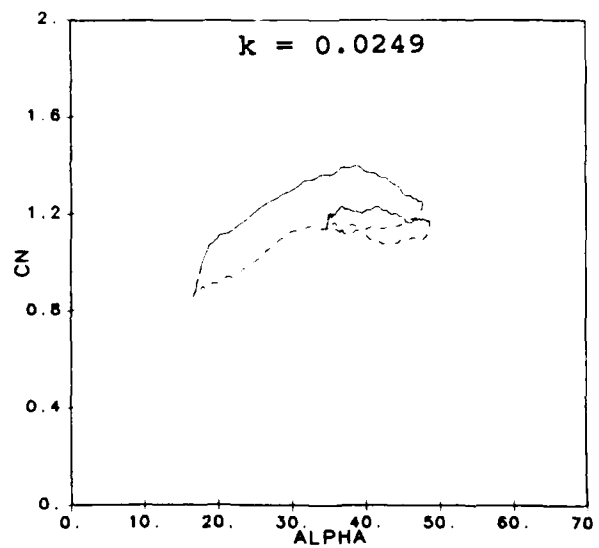
Straked Wing, Incidence = 16° to 48°



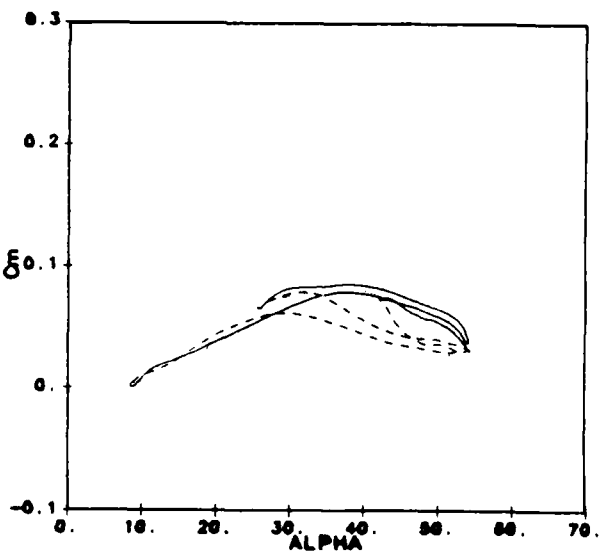
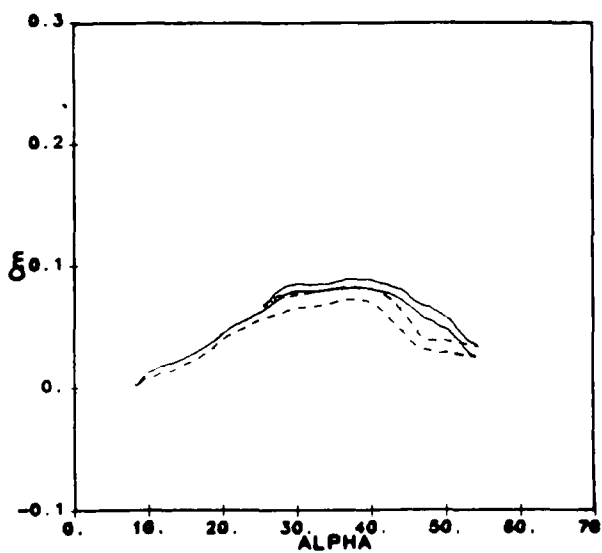
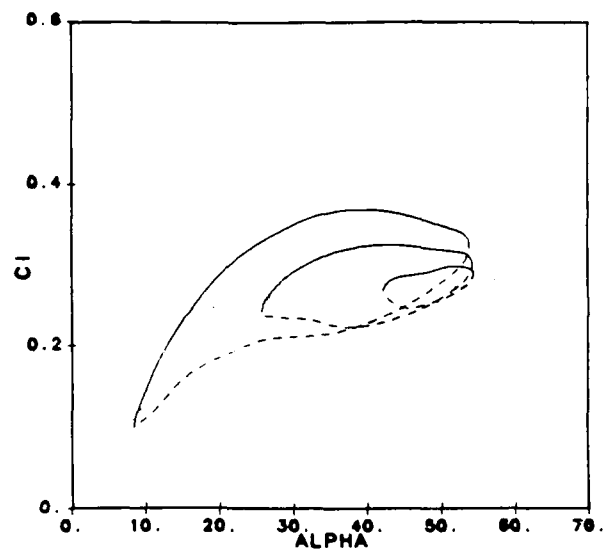
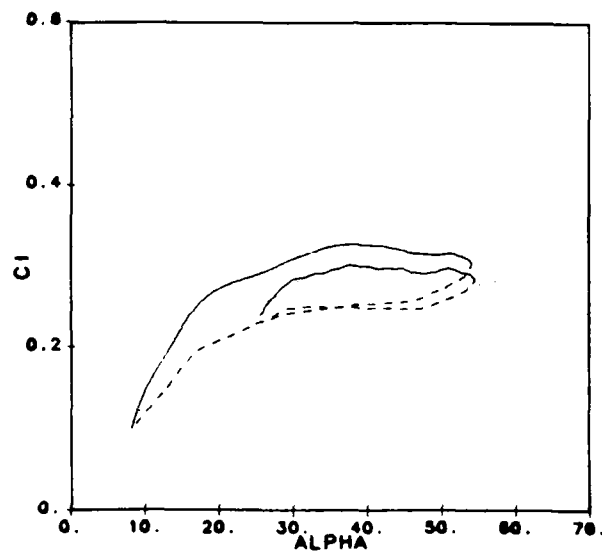
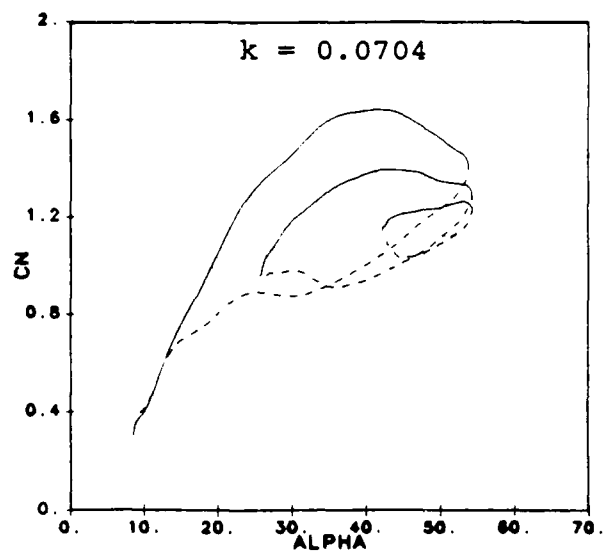
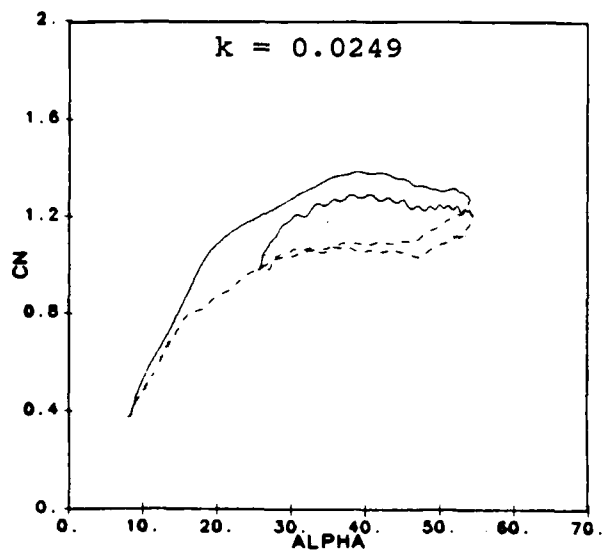
Straked Wing, Incidence = 24° to 56°



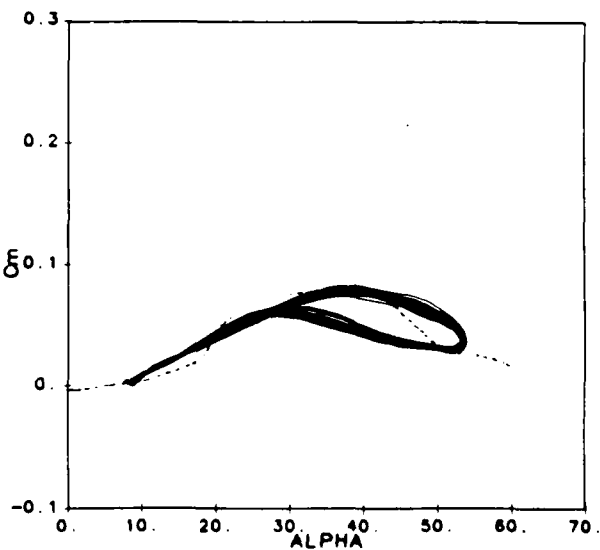
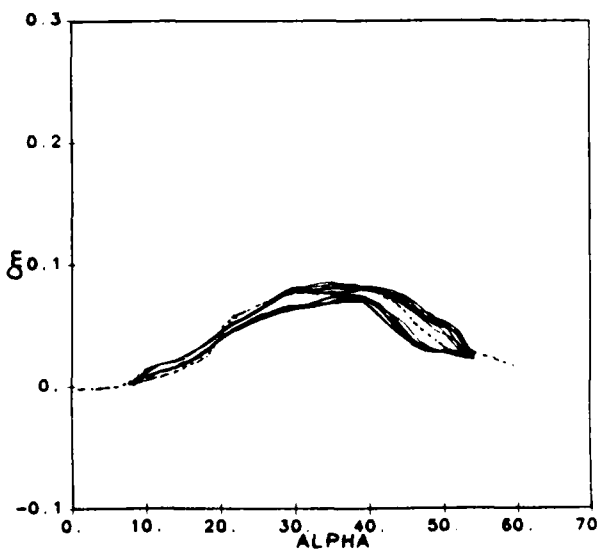
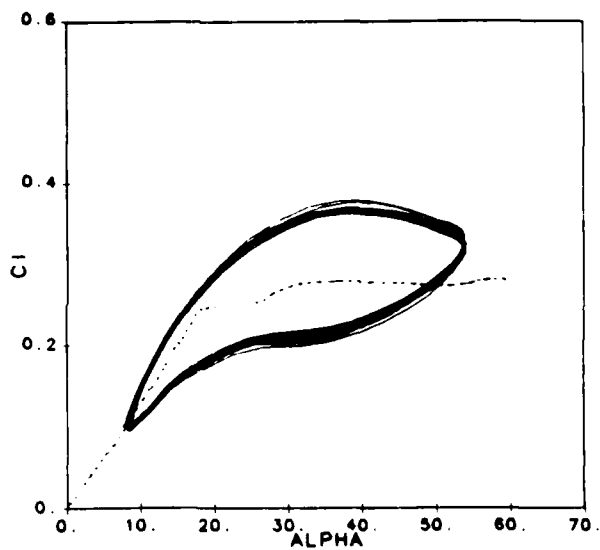
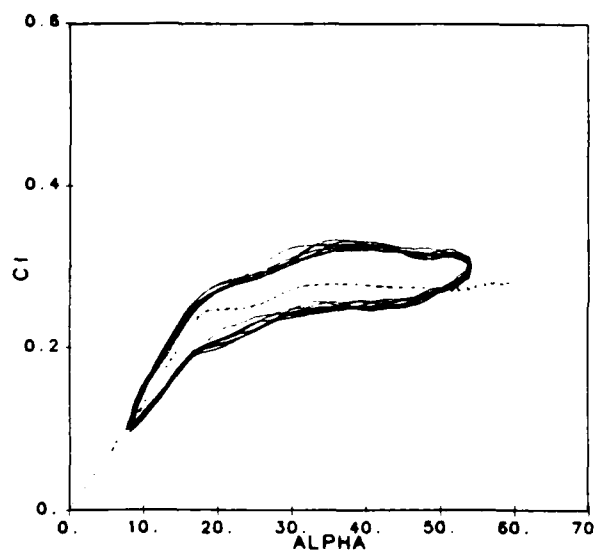
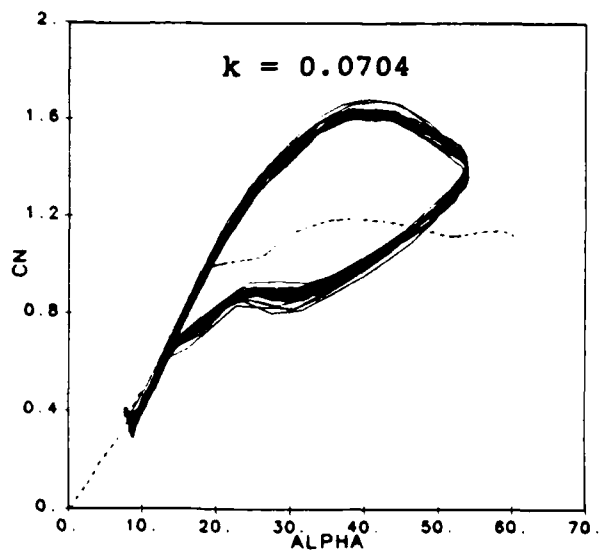
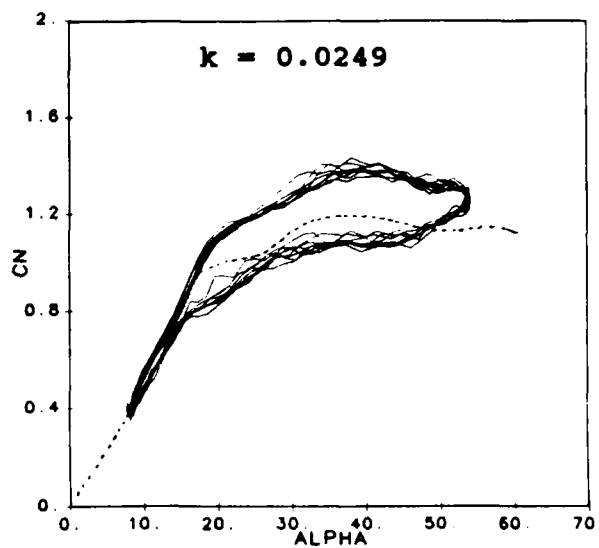
Straked Wing, Incidence = 8° to 40°



Straked Wing, Incidence = 16° to 48°



Straked Wing, Incidence = 8° to 56°



Straked Wing, Incidence = 8° to 56°

Straked Wing Static Data
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0000
 Alpha Min. = 0 deg.
 Alpha Max. = 60 deg.

Time	Alpha	CN	Cm	Cl
0.0000	-0.3018	-0.0130	-0.0036	-0.0033
0.0000	8.3425	0.3945	0.0081	0.2176
0.0000	16.9930	0.9111	0.0292	0.4596
0.0000	18.0000	0.9781	0.0323	0.4892
0.0000	20.1529	1.0002	0.0637	0.4973
0.0000	25.4924	1.0270	0.0824	0.5090
0.0000	31.2134	1.1552	0.0922	0.5542
0.0000	41.5727	1.1837	0.0936	0.5548
0.0000	50.0960	1.1251	0.0469	0.5451
0.0000	59.1718	1.1372	0.0341	0.5638

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
Alpha Min. = 8 deg.
Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.1587	0.3953	0.0087	0.1028
0.0220	8.2491	0.4005	0.0081	0.1040
0.0440	8.4178	0.4072	0.0079	0.1078
0.0660	8.5213	0.4237	0.0095	0.1132
0.0880	8.7207	0.4524	0.0103	0.1200
0.1100	9.0155	0.4874	0.0119	0.1287
0.1320	9.3816	0.5315	0.0148	0.1382
0.1540	9.9470	0.5835	0.0173	0.1492
0.1760	10.7743	0.6356	0.0191	0.1614
0.1980	11.6884	0.6822	0.0213	0.1749
0.2200	12.7255	0.7500	0.0233	0.1915
0.2420	13.8130	0.8181	0.0253	0.2096
0.2640	14.8936	0.8965	0.0290	0.2274
0.2860	15.9792	0.9657	0.0329	0.2430
0.3080	17.1272	1.0304	0.0365	0.2540
0.3300	18.2692	1.0738	0.0418	0.2580
0.3520	19.1393	1.0682	0.0473	0.2584
0.3740	19.9046	1.0806	0.0528	0.2594
0.3960	20.6145	1.0808	0.0559	0.2598
0.4180	21.4531	1.0944	0.0589	0.2632
0.4400	22.2133	1.1119	0.0609	0.2661
0.4620	22.6663	1.1134	0.0622	0.2669
0.4840	23.0376	1.1066	0.0640	0.2658
0.5060	23.3745	1.0977	0.0652	0.2634
0.5280	23.6124	1.0972	0.0658	0.2623
0.5500	23.5986	1.1002	0.0670	0.2633
0.5720	23.5295	1.1135	0.0666	0.2668
0.5940	23.5281	1.1242	0.0644	0.2647
0.6160	23.4919	1.0869	0.0622	0.2560
0.6380	23.1861	1.0560	0.0603	0.2487
0.6600	22.4363	1.0159	0.0580	0.2434
0.6820	21.6306	1.0078	0.0546	0.2419
0.7040	20.6774	0.9932	0.0518	0.2385
0.7260	19.7241	0.9654	0.0470	0.2352
0.7480	18.8161	0.9365	0.0408	0.2321
0.7700	17.8671	0.9376	0.0344	0.2289
0.7920	16.7463	0.8835	0.0307	0.2173
0.8140	15.6939	0.8248	0.0284	0.2020
0.8360	14.6888	0.7582	0.0248	0.1854
0.8580	13.7530	0.6981	0.0224	0.1706
0.8800	12.7664	0.6327	0.0199	0.1570
0.9020	11.7848	0.5817	0.0183	0.1448
0.9240	10.9077	0.5348	0.0155	0.1345
0.9460	10.1595	0.4930	0.0137	0.1253
0.9680	9.5057	0.4547	0.0121	0.1175
0.9900	9.0003	0.4259	0.0110	0.1117
1.0120	8.6007	0.4131	0.0103	0.1081
1.0340	8.3567	0.4062	0.0092	0.1052
1.0560	8.2157	0.3970	0.0084	0.1036

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
Alpha Min. = 8 deg.
Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.2326	0.3483	0.0074	0.1049
0.0080	8.2975	0.3577	0.0065	0.1083
0.0160	8.4444	0.3721	0.0062	0.1130
0.0240	8.6629	0.3895	0.0071	0.1198
0.0320	8.9597	0.4221	0.0097	0.1293
0.0400	9.3656	0.4712	0.0132	0.1407
0.0480	9.9277	0.5228	0.0165	0.1530
0.0560	10.6726	0.5730	0.0190	0.1669
0.0640	11.5828	0.6329	0.0213	0.1828
0.0720	12.6193	0.7074	0.0233	0.1999
0.0800	13.7392	0.7860	0.0253	0.2173
0.0880	14.8967	0.8690	0.0281	0.2347
0.0960	16.0511	0.9617	0.0314	0.2507
0.1040	17.1674	1.0496	0.0350	0.2632
0.1120	18.2143	1.1128	0.0391	0.2715
0.1200	19.1608	1.1554	0.0443	0.2765
0.1280	20.0045	1.1833	0.0498	0.2786
0.1360	20.7758	1.1920	0.0541	0.2785
0.1440	21.4898	1.1875	0.0569	0.2775
0.1520	22.1136	1.1817	0.0594	0.2761
0.1600	22.6129	1.1694	0.0617	0.2746
0.1680	23.0079	1.1561	0.0631	0.2733
0.1760	23.3249	1.1559	0.0640	0.2720
0.1840	23.5447	1.1554	0.0657	0.2696
0.1920	23.6495	1.1367	0.0673	0.2669
0.2000	23.6574	1.1231	0.0676	0.2646
0.2080	23.5840	1.1241	0.0668	0.2612
0.2160	23.4114	1.1060	0.0647	0.2554
0.2240	23.0918	1.0642	0.0613	0.2490
0.2320	22.5762	1.0326	0.0585	0.2433
0.2400	21.8560	1.0087	0.0565	0.2373
0.2480	20.9724	0.9676	0.0540	0.2310
0.2560	19.9942	0.9272	0.0506	0.2263
0.2640	18.9699	0.9110	0.0457	0.2218
0.2720	17.9055	0.8941	0.0399	0.2149
0.2800	16.8041	0.8530	0.0345	0.2055
0.2880	15.6934	0.8089	0.0299	0.1948
0.2960	14.5973	0.7703	0.0263	0.1824
0.3040	13.5319	0.7122	0.0231	0.1678
0.3120	12.5203	0.6315	0.0205	0.1535
0.3200	11.5860	0.5631	0.0184	0.1416
0.3280	10.7464	0.5168	0.0164	0.1314
0.3360	10.0191	0.4712	0.0144	0.1219
0.3440	9.4257	0.4219	0.0125	0.1143
0.3520	8.9649	0.3917	0.0109	0.1096
0.3600	8.6227	0.3810	0.0097	0.1066
0.3680	8.3910	0.3680	0.0088	0.1042
0.3760	8.2662	0.3506	0.0080	0.1034
0.3840	8.2423	0.3488	0.0071	0.1050

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
Alpha Min. = 8 deg.
Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.0139	0.3551	0.0055	0.1043
0.0220	8.1300	0.3747	0.0048	0.1062
0.0440	8.3618	0.4070	0.0049	0.1137
0.0660	8.6741	0.4273	0.0064	0.1223
0.0880	9.0185	0.4758	0.0101	0.1340
0.1100	9.7166	0.5544	0.0138	0.1502
0.1320	10.9816	0.6321	0.0161	0.1707
0.1540	12.5161	0.7123	0.0208	0.1947
0.1760	14.3152	0.8240	0.0240	0.2235
0.1980	16.2357	0.9708	0.0297	0.2516
0.2200	18.3149	1.0916	0.0368	0.2694
0.2420	20.2645	1.1296	0.0493	0.2785
0.2640	22.5670	1.1608	0.0572	0.2837
0.2860	24.9764	1.1952	0.0646	0.2898
0.3080	27.0531	1.2377	0.0736	0.2970
0.3300	28.9762	1.2585	0.0808	0.3043
0.3520	31.0473	1.2766	0.0812	0.3106
0.3740	32.9763	1.3109	0.0816	0.3150
0.3960	34.5515	1.3316	0.0828	0.3186
0.4180	35.8199	1.3269	0.0834	0.3168
0.4400	36.9875	1.3158	0.0846	0.3159
0.4620	38.0228	1.3076	0.0840	0.3141
0.4840	38.8817	1.2920	0.0848	0.3094
0.5060	39.3912	1.3020	0.0834	0.3071
0.5280	39.7421	1.2729	0.0812	0.3022
0.5500	39.8810	1.2577	0.0803	0.2983
0.5720	39.8141	1.2277	0.0794	0.2918
0.5940	39.6632	1.2148	0.0798	0.2894
0.6160	39.4821	1.2044	0.0786	0.2869
0.6380	38.9479	1.1816	0.0776	0.2837
0.6600	38.0252	1.1925	0.0784	0.2820
0.6820	36.6900	1.1715	0.0784	0.2794
0.7040	35.2923	1.1639	0.0782	0.2765
0.7260	33.6238	1.1551	0.0744	0.2758
0.7480	31.7086	1.1314	0.0733	0.2698
0.7700	29.6786	1.0767	0.0711	0.2577
0.7920	27.6529	1.0629	0.0684	0.2531
0.8140	25.5579	0.9966	0.0631	0.2424
0.8360	23.3462	0.9385	0.0558	0.2317
0.8580	21.1388	0.9008	0.0482	0.2228
0.8800	19.0774	0.8561	0.0399	0.2176
0.9020	17.2090	0.8225	0.0300	0.2098
0.9240	15.4001	0.7703	0.0236	0.1918
0.9460	13.7535	0.6748	0.0193	0.1700
0.9680	12.2523	0.5746	0.0164	0.1494
0.9900	10.9219	0.4970	0.0130	0.1332
1.0120	9.8374	0.4386	0.0109	0.1218
1.0340	9.0019	0.3919	0.0086	0.1126
1.0560	8.4392	0.3813	0.0068	0.1069
1.0780	8.1409	0.3829	0.0053	0.1052

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
 Alpha Min. = 8 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.3904	0.3363	0.0044	0.1029
0.0080	8.4726	0.3390	0.0036	0.1072
0.0160	8.7192	0.3454	0.0034	0.1155
0.0240	9.1575	0.3820	0.0055	0.1286
0.0320	9.8348	0.4494	0.0109	0.1455
0.0400	10.8308	0.5249	0.0165	0.1654
0.0480	12.1971	0.6079	0.0202	0.1888
0.0560	13.9055	0.7203	0.0236	0.2154
0.0640	15.8702	0.8624	0.0285	0.2425
0.0720	17.9981	1.0060	0.0354	0.2669
0.0800	20.2373	1.1300	0.0441	0.2870
0.0880	22.5683	1.2340	0.0523	0.3030
0.0960	24.9266	1.3168	0.0601	0.3152
0.1040	27.2202	1.3751	0.0688	0.3244
0.1120	29.4038	1.4186	0.0762	0.3313
0.1200	31.4416	1.4572	0.0803	0.3359
0.1280	33.2638	1.4816	0.0816	0.3374
0.1360	34.8246	1.4803	0.0827	0.3368
0.1440	36.1509	1.4670	0.0845	0.3357
0.1520	37.2823	1.4616	0.0861	0.3340
0.1600	38.2047	1.4534	0.0871	0.3309
0.1680	38.8951	1.4320	0.0877	0.3273
0.1760	39.3889	1.4134	0.0880	0.3237
0.1840	39.7500	1.3983	0.0884	0.3192
0.1920	39.9863	1.3765	0.0887	0.3137
0.2000	40.0544	1.3498	0.0884	0.3077
0.2080	39.9357	1.3197	0.0871	0.3014
0.2160	39.6176	1.2923	0.0848	0.2947
0.2240	39.0299	1.2690	0.0830	0.2871
0.2320	38.0821	1.2325	0.0825	0.2790
0.2400	36.7735	1.1848	0.0821	0.2718
0.2480	35.1963	1.1522	0.0806	0.2657
0.2560	33.4118	1.1343	0.0788	0.2591
0.2640	31.4163	1.1036	0.0771	0.2510
0.2720	29.2380	1.0534	0.0741	0.2426
0.2800	26.9714	1.0087	0.0691	0.2346
0.2880	24.6966	0.9786	0.0634	0.2260
0.2960	22.4390	0.9372	0.0571	0.2152
0.3040	20.2292	0.8696	0.0490	0.2033
0.3120	18.1354	0.8039	0.0397	0.1915
0.3200	16.2143	0.7590	0.0311	0.1784
0.3280	14.4763	0.7047	0.0245	0.1625
0.3360	12.9245	0.6169	0.0195	0.1454
0.3440	11.5882	0.5250	0.0159	0.1306
0.3520	10.4947	0.4630	0.0132	0.1192
0.3600	9.6435	0.4176	0.0108	0.1099
0.3680	9.0312	0.3690	0.0088	0.1032
0.3760	8.6479	0.3353	0.0069	0.1005
0.3840	8.4589	0.3336	0.0054	0.1010

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
Alpha Min. = 8 deg.
Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.2510	0.3786	0.0034	0.1005
0.0220	8.4151	0.3807	0.0025	0.1043
0.0440	8.7115	0.4135	0.0039	0.1140
0.0660	9.1936	0.4634	0.0073	0.1288
0.0880	10.1003	0.5314	0.0129	0.1483
0.1100	11.7211	0.6277	0.0174	0.1743
0.1320	13.8587	0.7435	0.0211	0.2071
0.1540	16.2779	0.9021	0.0283	0.2423
0.1760	18.9841	1.0530	0.0385	0.2663
0.1980	21.9048	1.1360	0.0521	0.2798
0.2200	25.1940	1.1940	0.0624	0.2900
0.2420	28.2965	1.2423	0.0757	0.3024
0.2640	31.5129	1.3026	0.0793	0.3141
0.2860	34.5981	1.3493	0.0807	0.3234
0.3080	37.4373	1.3740	0.0816	0.3274
0.3300	40.3073	1.3801	0.0803	0.3263
0.3520	43.0163	1.3743	0.0759	0.3235
0.3740	45.2961	1.3541	0.0666	0.3184
0.3960	47.2367	1.3253	0.0570	0.3159
0.4180	48.8682	1.3144	0.0518	0.3146
0.4400	50.3054	1.3038	0.0476	0.3154
0.4620	51.5973	1.3154	0.0405	0.3159
0.4840	52.6477	1.3031	0.0327	0.3132
0.5060	53.4250	1.2928	0.0276	0.3102
0.5280	53.8638	1.2848	0.0254	0.3074
0.5500	54.0305	1.2699	0.0251	0.3048
0.5720	54.0026	1.2647	0.0250	0.3016
0.5940	53.8002	1.2494	0.0265	0.2973
0.6160	53.4681	1.2311	0.0249	0.2916
0.6380	52.6351	1.2102	0.0258	0.2856
0.6600	51.0696	1.1855	0.0278	0.2769
0.6820	49.3661	1.1516	0.0285	0.2698
0.7040	47.6390	1.1215	0.0310	0.2623
0.7260	45.5829	1.0992	0.0375	0.2576
0.7480	43.1995	1.0913	0.0527	0.2554
0.7700	40.5339	1.0881	0.0681	0.2536
0.7920	37.5358	1.0955	0.0725	0.2520
0.8140	34.5382	1.0697	0.0691	0.2487
0.8360	31.3886	1.0525	0.0662	0.2446
0.8580	28.2302	1.0302	0.0620	0.2395
0.8800	25.1673	0.9797	0.0561	0.2298
0.9020	22.1237	0.9119	0.0470	0.2164
0.9240	19.3722	0.8582	0.0358	0.2059
0.9460	16.8998	0.8087	0.0246	0.1943
0.9680	14.6700	0.7286	0.0184	0.1715
0.9900	12.7275	0.6265	0.0132	0.1474
1.0120	11.0290	0.5323	0.0101	0.1295
1.0340	9.7443	0.4623	0.0082	0.1159
1.0560	8.9019	0.4220	0.0053	0.1063
1.0780	8.4219	0.4005	0.0037	0.1019
1.1000	8.2473	0.3823	0.0035	0.1010

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
Alpha Min. = 8 deg.
Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.5680	0.3092	0.0025	0.1000
0.0080	8.6181	0.3152	0.0014	0.1073
0.0160	8.9084	0.3538	0.0010	0.1182
0.0240	9.5116	0.3795	0.0038	0.1329
0.0320	10.5417	0.4275	0.0107	0.1556
0.0400	12.0787	0.5485	0.0172	0.1854
0.0480	14.1266	0.7022	0.0221	0.2173
0.0560	16.6457	0.8478	0.0282	0.2498
0.0640	19.5584	1.0235	0.0364	0.2824
0.0720	22.7267	1.2179	0.0457	0.3098
0.0800	26.0322	1.3504	0.0556	0.3301
0.0880	29.4101	1.4409	0.0654	0.3470
0.0960	32.7764	1.5441	0.0736	0.3601
0.1040	36.0122	1.6130	0.0785	0.3668
0.1120	39.0289	1.6314	0.0789	0.3688
0.1200	41.7903	1.6373	0.0759	0.3677
0.1280	44.2681	1.6245	0.0716	0.3637
0.1360	46.4144	1.5905	0.0676	0.3587
0.1440	48.2264	1.5553	0.0638	0.3540
0.1520	49.7620	1.5249	0.0599	0.3495
0.1600	51.0549	1.4957	0.0565	0.3457
0.1680	52.1003	1.4726	0.0524	0.3426
0.1760	52.8872	1.4598	0.0479	0.3392
0.1840	53.4232	1.4428	0.0440	0.3351
0.1920	53.7278	1.4207	0.0401	0.3302
0.2000	53.8163	1.3996	0.0367	0.3241
0.2080	53.7004	1.3755	0.0345	0.3167
0.2160	53.3356	1.3482	0.0330	0.3081
0.2240	52.6201	1.3099	0.0314	0.2986
0.2320	51.4780	1.2671	0.0302	0.2886
0.2400	49.9223	1.2318	0.0315	0.2777
0.2480	48.0181	1.1903	0.0335	0.2655
0.2560	45.7718	1.1309	0.0352	0.2526
0.2640	43.1779	1.0655	0.0385	0.2404
0.2720	40.3076	1.0081	0.0443	0.2295
0.2800	37.2585	0.9573	0.0511	0.2203
0.2880	34.0878	0.9093	0.0571	0.2142
0.2960	30.8472	0.8793	0.0613	0.2119
0.3040	27.6255	0.8846	0.0610	0.2100
0.3120	24.4927	0.8919	0.0559	0.2035
0.3200	21.5047	0.8456	0.0483	0.1921
0.3280	18.7484	0.7671	0.0389	0.1796
0.3360	16.2944	0.7156	0.0290	0.1667
0.3440	14.1695	0.6693	0.0206	0.1504
0.3520	12.3885	0.5731	0.0152	0.1323
0.3600	10.9699	0.4640	0.0119	0.1182
0.3680	9.9119	0.4078	0.0089	0.1096
0.3760	9.1856	0.3832	0.0059	0.1031
0.3840	8.7618	0.3401	0.0037	0.0990

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.6610	0.8617	0.0213	0.2177
0.0220	16.7449	0.8729	0.0215	0.2201
0.0440	16.9645	0.8935	0.0209	0.2248
0.0660	17.1610	0.9112	0.0224	0.2313
0.0880	17.4331	0.9521	0.0240	0.2397
0.1100	17.7460	0.9961	0.0265	0.2463
0.1320	18.2826	1.0309	0.0294	0.2519
0.1540	18.9550	1.0587	0.0349	0.2548
0.1760	19.6286	1.0647	0.0391	0.2568
0.1980	20.4367	1.0824	0.0440	0.2583
0.2200	21.4465	1.0999	0.0477	0.2619
0.2420	22.6567	1.1232	0.0520	0.2658
0.2640	23.8528	1.1419	0.0559	0.2704
0.2860	24.9929	1.1633	0.0613	0.2753
0.3080	26.1876	1.1944	0.0653	0.2786
0.3300	27.1357	1.2021	0.0699	0.2833
0.3520	28.0158	1.2404	0.0738	0.2879
0.3740	28.7104	1.2393	0.0738	0.2870
0.3960	29.5364	1.2359	0.0733	0.2863
0.4180	30.2667	1.2252	0.0732	0.2885
0.4400	30.9559	1.2589	0.0725	0.2943
0.4620	31.6215	1.2654	0.0726	0.2946
0.4840	32.0291	1.2629	0.0741	0.2952
0.5060	32.1816	1.2739	0.0733	0.2950
0.5280	32.2599	1.2619	0.0742	0.2931
0.5500	32.2601	1.2506	0.0750	0.2904
0.5720	32.1443	1.2432	0.0732	0.2870
0.5940	32.0414	1.2183	0.0728	0.2845
0.6160	31.9346	1.2209	0.0728	0.2845
0.6380	31.7269	1.2129	0.0681	0.2799
0.6600	31.3403	1.1986	0.0683	0.2767
0.6820	30.5563	1.1828	0.0686	0.2718
0.7040	29.6010	1.1463	0.0675	0.2659
0.7260	28.7813	1.1256	0.0671	0.2603
0.7480	27.9092	1.1052	0.0650	0.2553
0.7700	26.9684	1.0691	0.0636	0.2488
0.7920	25.8759	1.0423	0.0584	0.2444
0.8140	24.7167	1.0040	0.0551	0.2382
0.8360	23.6668	1.0004	0.0507	0.2331
0.8580	22.5384	0.9638	0.0465	0.2310
0.8800	21.5059	0.9694	0.0432	0.2315
0.9020	20.4401	0.9539	0.0394	0.2296
0.9240	19.7041	0.9493	0.0353	0.2288
0.9460	18.9785	0.9322	0.0304	0.2281
0.9680	18.4011	0.9288	0.0265	0.2281
0.9900	17.8995	0.9167	0.0243	0.2258
1.0120	17.3269	0.8854	0.0228	0.2211
1.0340	16.9454	0.8839	0.0216	0.2180
1.0560	16.7319	0.8697	0.0207	0.2165

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.8135	0.8641	0.0199	0.2191
0.0080	16.8642	0.8623	0.0190	0.2214
0.0160	17.0024	0.8719	0.0188	0.2262
0.0240	17.2351	0.8967	0.0203	0.2329
0.0320	17.5799	0.9318	0.0229	0.2407
0.0400	18.0413	0.9756	0.0261	0.2492
0.0480	18.6256	1.0259	0.0296	0.2578
0.0560	19.3473	1.0771	0.0343	0.2653
0.0640	20.2142	1.1229	0.0393	0.2711
0.0720	21.2124	1.1555	0.0439	0.2756
0.0800	22.3308	1.1767	0.0479	0.2797
0.0880	23.5423	1.2006	0.0514	0.2837
0.0960	24.7707	1.2275	0.0547	0.2869
0.1040	25.9298	1.2407	0.0587	0.2897
0.1120	26.9855	1.2496	0.0637	0.2931
0.1200	27.9506	1.2714	0.0683	0.2968
0.1280	28.8326	1.2932	0.0716	0.2994
0.1360	29.6354	1.3026	0.0735	0.3014
0.1440	30.3598	1.3118	0.0744	0.3027
0.1520	30.9916	1.3168	0.0744	0.3028
0.1600	31.5019	1.3153	0.0747	0.3026
0.1680	31.8530	1.3219	0.0758	0.3021
0.1760	32.0730	1.3251	0.0764	0.2998
0.1840	32.1737	1.3050	0.0757	0.2963
0.1920	32.2097	1.2838	0.0744	0.2933
0.2000	32.1846	1.2741	0.0734	0.2908
0.2080	32.0929	1.2606	0.0728	0.2880
0.2160	31.9374	1.2479	0.0724	0.2855
0.2240	31.6870	1.2478	0.0720	0.2830
0.2320	31.2878	1.2384	0.0700	0.2792
0.2400	30.7150	1.2138	0.0677	0.2747
0.2480	29.9968	1.1965	0.0670	0.2700
0.2560	29.1610	1.1804	0.0670	0.2643
0.2640	28.2094	1.1438	0.0656	0.2583
0.2720	27.1555	1.1081	0.0626	0.2533
0.2800	26.0432	1.0924	0.0596	0.2481
0.2880	24.9071	1.0667	0.0569	0.2414
0.2960	23.7534	1.0165	0.0534	0.2353
0.3040	22.6041	0.9777	0.0493	0.2317
0.3120	21.5255	0.9686	0.0456	0.2290
0.3200	20.5752	0.9540	0.0417	0.2253
0.3280	19.7486	0.9179	0.0370	0.2220
0.3360	19.0201	0.8907	0.0322	0.2210
0.3440	18.3935	0.8907	0.0281	0.2209
0.3520	17.8744	0.8924	0.0251	0.2198
0.3600	17.4442	0.8800	0.0230	0.2183
0.3680	17.1042	0.8674	0.0218	0.2178
0.3760	16.8933	0.8649	0.0211	0.2181
0.3840	16.8302	0.8631	0.0200	0.2190

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.7248	0.8600	0.0179	0.2130
0.0220	16.8781	0.8737	0.0177	0.2176
0.0440	17.1869	0.9068	0.0182	0.2266
0.0660	17.5625	0.9543	0.0225	0.2378
0.0880	18.2357	1.0200	0.0256	0.2489
0.1100	19.1648	1.0755	0.0318	0.2565
0.1320	20.2744	1.1105	0.0397	0.2616
0.1540	21.8684	1.1292	0.0464	0.2668
0.1760	23.9437	1.1784	0.0520	0.2760
0.1980	26.0022	1.2304	0.0604	0.2861
0.2200	27.9304	1.2633	0.0681	0.2946
0.2420	29.9939	1.2969	0.0728	0.3035
0.2640	32.2379	1.3390	0.0712	0.3097
0.2860	34.2924	1.3628	0.0723	0.3133
0.3080	36.1686	1.3755	0.0774	0.3188
0.3300	38.0157	1.3910	0.0778	0.3208
0.3520	39.8042	1.3808	0.0762	0.3162
0.3740	41.5422	1.3621	0.0722	0.3120
0.3960	43.0925	1.3451	0.0682	0.3082
0.4180	44.3635	1.3162	0.0624	0.3033
0.4400	45.4276	1.2763	0.0573	0.2981
0.4620	46.2954	1.2697	0.0531	0.2950
0.4840	46.9210	1.2623	0.0480	0.2923
0.5060	47.4281	1.2536	0.0448	0.2917
0.5280	47.7303	1.2404	0.0405	0.2894
0.5500	47.7860	1.2384	0.0381	0.2870
0.5720	47.6881	1.2323	0.0366	0.2832
0.5940	47.4913	1.2098	0.0353	0.2792
0.6160	47.2889	1.1981	0.0366	0.2766
0.6380	46.8590	1.1840	0.0405	0.2733
0.6600	45.9641	1.1763	0.0465	0.2688
0.6820	44.7281	1.1549	0.0545	0.2644
0.7040	43.3590	1.1494	0.0587	0.2624
0.7260	41.7062	1.1411	0.0618	0.2620
0.7480	39.8324	1.1348	0.0664	0.2612
0.7700	37.8694	1.1532	0.0677	0.2610
0.7920	35.9370	1.1382	0.0667	0.2609
0.8140	34.0016	1.1406	0.0654	0.2618
0.8360	31.8536	1.1418	0.0644	0.2595
0.8580	29.6902	1.1245	0.0627	0.2541
0.8800	27.7609	1.0764	0.0591	0.2452
0.9020	25.8545	1.0276	0.0540	0.2362
0.9240	23.9687	0.9835	0.0480	0.2275
0.9460	22.1876	0.9414	0.0420	0.2229
0.9680	20.6480	0.9284	0.0371	0.2208
0.9900	19.4847	0.9148	0.0307	0.2206
1.0120	18.5375	0.8906	0.0243	0.2204
1.0340	17.7742	0.8939	0.0204	0.2190
1.0560	17.1164	0.8766	0.0187	0.2150
1.0780	16.7960	0.8560	0.0178	0.2124
1.1000	16.7361	0.8544	0.0180	0.2132

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.9408	0.8370	0.0166	0.2114
0.0080	17.0129	0.8454	0.0155	0.2167
0.0160	17.2662	0.8671	0.0147	0.2239
0.0240	17.7165	0.8937	0.0169	0.2340
0.0320	18.4193	0.9477	0.0229	0.2476
0.0400	19.4328	1.0345	0.0297	0.2616
0.0480	20.7851	1.1120	0.0361	0.2733
0.0560	22.4804	1.1647	0.0426	0.2846
0.0640	24.4677	1.2278	0.0489	0.2965
0.0720	26.6304	1.2988	0.0551	0.3070
0.0800	28.8682	1.3463	0.0616	0.3161
0.0880	31.1330	1.3952	0.0672	0.3253
0.0960	33.3661	1.4583	0.0713	0.3323
0.1040	35.4983	1.4898	0.0735	0.3354
0.1120	37.5024	1.4936	0.0743	0.3368
0.1200	39.3913	1.5075	0.0746	0.3374
0.1280	41.1507	1.5133	0.0732	0.3354
0.1360	42.7053	1.4912	0.0705	0.3317
0.1440	44.0082	1.4641	0.0680	0.3281
0.1520	45.0891	1.4490	0.0653	0.3245
0.1600	45.9578	1.4342	0.0622	0.3200
0.1680	46.6062	1.4040	0.0584	0.3153
0.1760	47.0800	1.3794	0.0545	0.3111
0.1840	47.4171	1.3680	0.0524	0.3065
0.1920	47.6078	1.3421	0.0518	0.3018
0.2000	47.6552	1.3167	0.0509	0.2979
0.2080	47.5694	1.3142	0.0512	0.2936
0.2160	47.3292	1.3027	0.0517	0.2877
0.2240	46.8666	1.2692	0.0499	0.2808
0.2320	46.1101	1.2387	0.0484	0.2741
0.2400	45.0476	1.2153	0.0506	0.2670
0.2480	43.6846	1.1840	0.0546	0.2596
0.2560	42.0120	1.1428	0.0583	0.2532
0.2640	40.0896	1.1091	0.0621	0.2482
0.2720	38.0474	1.0917	0.0649	0.2440
0.2800	35.9489	1.0754	0.0662	0.2396
0.2880	33.7733	1.0484	0.0663	0.2357
0.2960	31.5434	1.0263	0.0652	0.2327
0.3040	29.3696	1.0172	0.0621	0.2287
0.3120	27.3174	0.9982	0.0573	0.2229
0.3200	25.3627	0.9576	0.0525	0.2169
0.3280	23.5164	0.9187	0.0478	0.2126
0.3360	21.8692	0.8948	0.0429	0.2093
0.3440	20.4902	0.8714	0.0372	0.2068
0.3520	19.3578	0.8447	0.0311	0.2062
0.3600	18.4399	0.8358	0.0255	0.2077
0.3680	17.7523	0.8471	0.0216	0.2090
0.3760	17.2992	0.8529	0.0189	0.2091
0.3840	17.0461	0.8429	0.0172	0.2096

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
Alpha Min. = 24 deg.
Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	25.3889	0.9978	0.0708	0.2468
0.0220	25.5474	1.0105	0.0696	0.2480
0.0440	25.7804	1.0254	0.0701	0.2491
0.0660	25.8881	1.0378	0.0724	0.2520
0.0880	26.0641	1.0635	0.0732	0.2534
0.1100	26.3557	1.0721	0.0754	0.2560
0.1320	26.8522	1.1004	0.0788	0.2613
0.1540	27.4273	1.1110	0.0808	0.2667
0.1760	28.2279	1.1469	0.0831	0.2709
0.1980	28.9655	1.1516	0.0832	0.2741
0.2200	29.8960	1.1862	0.0855	0.2818
0.2420	30.8872	1.1943	0.0860	0.2854
0.2640	32.0847	1.2166	0.0845	0.2872
0.2860	33.1290	1.2308	0.0857	0.2903
0.3080	34.2112	1.2485	0.0872	0.2907
0.3300	35.0835	1.2484	0.0890	0.2914
0.3520	35.8729	1.2536	0.0900	0.2917
0.3740	36.5653	1.2531	0.0883	0.2927
0.3960	37.3528	1.2430	0.0892	0.2913
0.4180	38.0242	1.2224	0.0897	0.2911
0.4400	38.7268	1.2241	0.0883	0.2889
0.4620	39.3257	1.2128	0.0880	0.2861
0.4840	39.6604	1.2219	0.0873	0.2854
0.5060	39.9019	1.2089	0.0871	0.2824
0.5280	40.1348	1.2158	0.0877	0.2823
0.5500	40.2589	1.2183	0.0874	0.2812
0.5720	40.2435	1.2048	0.0866	0.2783
0.5940	40.1025	1.1810	0.0861	0.2750
0.6160	39.9839	1.1668	0.0857	0.2737
0.6380	39.9026	1.1610	0.0858	0.2725
0.6600	39.7177	1.1450	0.0861	0.2705
0.6820	39.2899	1.1399	0.0842	0.2689
0.7040	38.7042	1.1544	0.0847	0.2683
0.7260	37.8745	1.1340	0.0856	0.2655
0.7480	37.0824	1.1472	0.0852	0.2677
0.7700	36.1866	1.1514	0.0853	0.2690
0.7920	35.3532	1.1592	0.0841	0.2691
0.8140	34.4539	1.1419	0.0826	0.2677
0.8360	33.5236	1.1421	0.0822	0.2686
0.8580	32.3719	1.1248	0.0829	0.2675
0.8800	31.3736	1.1337	0.0806	0.2630
0.9020	30.2332	1.1138	0.0806	0.2602
0.9240	29.4177	1.1027	0.0817	0.2580
0.9460	28.5963	1.0675	0.0794	0.2545
0.9680	27.9432	1.0593	0.0782	0.2509
0.9900	27.3048	1.0613	0.0779	0.2495
1.0120	26.6433	1.0263	0.0747	0.2476
1.0340	26.2326	1.0228	0.0728	0.2482
1.0560	25.9433	1.0128	0.0719	0.2467
1.0780	25.6515	1.0092	0.0709	0.2452
1.1000	25.4153	0.9866	0.0706	0.2442

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
 Alpha Min. = 24 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	25.6155	0.9832	0.0697	0.2443
0.0080	25.6563	0.9948	0.0686	0.2465
0.0160	25.8059	1.0164	0.0688	0.2489
0.0240	26.0298	1.0282	0.0707	0.2516
0.0320	26.3607	1.0401	0.0733	0.2558
0.0400	26.8488	1.0709	0.0761	0.2609
0.0480	27.4954	1.1032	0.0791	0.2657
0.0560	28.2731	1.1198	0.0817	0.2707
0.0640	29.1704	1.1431	0.0837	0.2768
0.0720	30.1807	1.1814	0.0851	0.2828
0.0800	31.2649	1.2112	0.0853	0.2876
0.0880	32.3597	1.2320	0.0849	0.2918
0.0960	33.4243	1.2590	0.0846	0.2951
0.1040	34.4378	1.2799	0.0848	0.2963
0.1120	35.3771	1.2780	0.0859	0.2966
0.1200	36.2340	1.2723	0.0878	0.2978
0.1280	37.0278	1.2809	0.0895	0.2990
0.1360	37.7680	1.2848	0.0901	0.2988
0.1440	38.4290	1.2767	0.0902	0.2982
0.1520	38.9880	1.2771	0.0902	0.2977
0.1600	39.4394	1.2855	0.0898	0.2962
0.1680	39.7790	1.2796	0.0887	0.2935
0.1760	40.0215	1.2641	0.0879	0.2911
0.1840	40.1966	1.2591	0.0881	0.2893
0.1920	40.3091	1.2554	0.0882	0.2867
0.2000	40.3414	1.2371	0.0879	0.2835
0.2080	40.2965	1.2177	0.0881	0.2810
0.2160	40.1951	1.2074	0.0888	0.2787
0.2240	40.0368	1.1950	0.0888	0.2759
0.2320	39.7868	1.1817	0.0881	0.2731
0.2400	39.3978	1.1765	0.0880	0.2702
0.2480	38.8416	1.1671	0.0876	0.2663
0.2560	38.1270	1.1437	0.0873	0.2626
0.2640	37.2968	1.1253	0.0875	0.2606
0.2720	36.3911	1.1201	0.0882	0.2597
0.2800	35.4266	1.1125	0.0877	0.2588
0.2880	34.4056	1.1029	0.0862	0.2579
0.2960	33.3421	1.1032	0.0852	0.2563
0.3040	32.2661	1.0988	0.0846	0.2533
0.3120	31.2067	1.0765	0.0835	0.2498
0.3200	30.1982	1.0547	0.0820	0.2476
0.3280	29.2893	1.0475	0.0801	0.2461
0.3360	28.5053	1.0389	0.0782	0.2441
0.3440	27.8268	1.0215	0.0767	0.2419
0.3520	27.2315	1.0041	0.0755	0.2402
0.3600	26.7316	0.9887	0.0742	0.2392
0.3680	26.3535	0.9776	0.0728	0.2390
0.3760	26.0758	0.9789	0.0716	0.2400
0.3840	25.8449	0.9841	0.0711	0.2414
0.3920	25.6728	0.9804	0.0707	0.2428

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	25.5666	0.9856	0.0689	0.2399
0.0220	25.7447	0.9845	0.0675	0.2410
0.0440	25.9722	1.0037	0.0691	0.2451
0.0660	26.2200	1.0450	0.0714	0.2511
0.0880	26.7223	1.0719	0.0750	0.2568
0.1100	27.5361	1.1054	0.0790	0.2646
0.1320	28.6848	1.1614	0.0834	0.2757
0.1540	30.0600	1.1940	0.0852	0.2843
0.1760	31.8104	1.2028	0.0844	0.2876
0.1980	33.7368	1.2566	0.0847	0.2916
0.2200	35.4633	1.2682	0.0868	0.2963
0.2420	37.1492	1.2732	0.0888	0.3010
0.2640	39.0698	1.2792	0.0887	0.3002
0.2860	41.0663	1.2875	0.0861	0.2979
0.3080	42.9811	1.2784	0.0825	0.2978
0.3300	44.7328	1.2648	0.0780	0.2978
0.3520	46.3067	1.2317	0.0697	0.2927
0.3740	47.7791	1.2277	0.0663	0.2911
0.3960	49.0296	1.2381	0.0618	0.2927
0.4180	50.1133	1.2477	0.0578	0.2963
0.4400	51.1640	1.2462	0.0521	0.2977
0.4620	52.1595	1.2379	0.0452	0.2953
0.4840	53.0349	1.2202	0.0393	0.2924
0.5060	53.7446	1.2243	0.0365	0.2912
0.5280	54.1809	1.2228	0.0348	0.2879
0.5500	54.4120	1.2131	0.0335	0.2862
0.5720	54.4980	1.2028	0.0333	0.2842
0.5940	54.4029	1.1909	0.0340	0.2819
0.6160	54.2558	1.1827	0.0348	0.2803
0.6380	54.0572	1.1719	0.0335	0.2776
0.6600	53.5975	1.1511	0.0341	0.2735
0.6820	52.5729	1.1190	0.0359	0.2674
0.7040	51.3345	1.1013	0.0378	0.2616
0.7260	50.0690	1.0861	0.0389	0.2570
0.7480	48.8194	1.0672	0.0387	0.2524
0.7700	47.4787	1.0370	0.0392	0.2485
0.7920	45.9006	1.0495	0.0499	0.2480
0.8140	44.1586	1.0606	0.0626	0.2483
0.8360	42.4088	1.0569	0.0736	0.2489
0.8580	40.4133	1.0628	0.0803	0.2485
0.8800	38.3879	1.0668	0.0824	0.2499
0.9020	36.5571	1.0742	0.0823	0.2501
0.9240	34.8827	1.0634	0.0805	0.2487
0.9460	33.1182	1.0701	0.0791	0.2516
0.9680	31.3419	1.0639	0.0781	0.2505
0.9900	29.8462	1.0573	0.0770	0.2485
1.0120	28.7038	1.0534	0.0768	0.2464
1.0340	27.7768	1.0355	0.0761	0.2412
1.0560	26.8350	0.9883	0.0728	0.2413
1.0780	26.2581	1.0015	0.0704	0.2416
1.1000	25.8605	1.0016	0.0692	0.2403
1.1220	25.5781	0.9835	0.0690	0.2408

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	25.6690	0.9617	0.0671	0.2415
0.0080	25.7767	0.9674	0.0658	0.2465
0.0160	26.0705	1.0033	0.0660	0.2534
0.0240	26.5800	1.0419	0.0691	0.2609
0.0320	27.3624	1.0745	0.0738	0.2697
0.0400	28.4613	1.1238	0.0783	0.2802
0.0480	29.8780	1.1804	0.0818	0.2903
0.0560	31.5702	1.2244	0.0832	0.2995
0.0640	33.4394	1.2698	0.0834	0.3082
0.0720	35.3848	1.3176	0.0844	0.3151
0.0800	37.3756	1.3477	0.0855	0.3199
0.0880	39.4056	1.3696	0.0852	0.3232
0.0960	41.4204	1.3893	0.0833	0.3251
0.1040	43.3418	1.3939	0.0802	0.3253
0.1120	45.1216	1.3893	0.0762	0.3243
0.1200	46.7427	1.3830	0.0724	0.3224
0.1280	48.1912	1.3685	0.0695	0.3204
0.1360	49.4649	1.3518	0.0669	0.3190
0.1440	50.5887	1.3431	0.0641	0.3179
0.1520	51.5863	1.3391	0.0613	0.3167
0.1600	52.4427	1.3353	0.0580	0.3157
0.1680	53.1273	1.3333	0.0540	0.3145
0.1760	53.6368	1.3289	0.0493	0.3122
0.1840	53.9844	1.3185	0.0450	0.3086
0.1920	54.1833	1.3021	0.0412	0.3044
0.2000	54.2460	1.2827	0.0389	0.3001
0.2080	54.1853	1.2657	0.0386	0.2959
0.2160	53.9922	1.2517	0.0391	0.2912
0.2240	53.6209	1.2298	0.0386	0.2855
0.2320	53.0036	1.1989	0.0370	0.2792
0.2400	52.1045	1.1687	0.0371	0.2723
0.2480	50.9571	1.1388	0.0392	0.2648
0.2560	49.6172	1.1027	0.0409	0.2571
0.2640	48.1158	1.0647	0.0414	0.2499
0.2720	46.4660	1.0336	0.0420	0.2430
0.2800	44.6709	1.0061	0.0444	0.2365
0.2880	42.7456	0.9762	0.0484	0.2306
0.2960	40.7398	0.9482	0.0541	0.2261
0.3040	38.7461	0.9282	0.0607	0.2234
0.3120	36.8393	0.9155	0.0679	0.2233
0.3200	35.0313	0.9156	0.0742	0.2261
0.3280	33.2958	0.9385	0.0781	0.2305
0.3360	31.6399	0.9712	0.0794	0.2337
0.3440	30.1381	0.9830	0.0781	0.2345
0.3520	28.8681	0.9758	0.0755	0.2349
0.3600	27.8423	0.9738	0.0732	0.2359
0.3680	27.0326	0.9728	0.0715	0.2365
0.3760	26.4271	0.9604	0.0700	0.2371
0.3840	26.0156	0.9564	0.0688	0.2388
0.3920	25.7703	0.9692	0.0681	0.2408
0.4000	25.6792	0.9748	0.0672	0.2426

Straked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0249
Alpha Min. = 32 deg.
Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	C1
0.0000	34.6468	1.1375	0.0795	0.2698
0.0220	34.7280	1.1547	0.0804	0.2725
0.0440	34.8624	1.1646	0.0827	0.2771
0.0660	35.0781	1.1951	0.0826	0.2800
0.0880	35.3275	1.2010	0.0827	0.2796
0.1100	35.5587	1.2009	0.0840	0.2806
0.1320	35.9553	1.2039	0.0841	0.2837
0.1540	36.5563	1.2284	0.0852	0.2866
0.1760	37.1982	1.2221	0.0854	0.2858
0.1980	38.0113	1.2159	0.0853	0.2866
0.2200	38.8634	1.2107	0.0851	0.2872
0.2420	39.8197	1.2099	0.0858	0.2873
0.2640	40.7597	1.2166	0.0850	0.2869
0.2860	41.8676	1.2263	0.0835	0.2857
0.3080	42.7631	1.2138	0.0813	0.2846
0.3300	43.6051	1.1992	0.0786	0.2827
0.3520	44.4298	1.1955	0.0738	0.2805
0.3740	45.2122	1.1840	0.0703	0.2791
0.3960	45.8379	1.1651	0.0688	0.2793
0.4180	46.5084	1.1731	0.0672	0.2805
0.4400	47.0962	1.1770	0.0661	0.2792
0.4620	47.4767	1.1756	0.0637	0.2775
0.4840	47.8406	1.1803	0.0622	0.2776
0.5060	48.2563	1.1732	0.0600	0.2769
0.5280	48.5789	1.1724	0.0592	0.2773
0.5500	48.7254	1.1645	0.0579	0.2760
0.5720	48.7569	1.1556	0.0566	0.2744
0.5940	48.6829	1.1540	0.0558	0.2721
0.6160	48.4822	1.1360	0.0543	0.2692
0.6380	48.3337	1.1203	0.0529	0.2675
0.6600	48.2226	1.1082	0.0551	0.2667
0.6820	48.0429	1.1031	0.0577	0.2659
0.7040	47.6214	1.0902	0.0601	0.2631
0.7260	47.0422	1.0910	0.0634	0.2616
0.7480	46.3402	1.1043	0.0667	0.2597
0.7700	45.4598	1.0897	0.0695	0.2586
0.7920	44.7465	1.0916	0.0703	0.2570
0.8140	43.9188	1.0807	0.0702	0.2562
0.8360	43.0691	1.0775	0.0739	0.2567
0.8580	42.0196	1.0835	0.0785	0.2600
0.8800	41.0218	1.0915	0.0814	0.2617
0.9020	40.0022	1.1168	0.0820	0.2647
0.9240	39.1769	1.1314	0.0831	0.2647
0.9460	38.2715	1.1224	0.0813	0.2637
0.9680	37.5727	1.1250	0.0814	0.2655
0.9900	36.8090	1.1303	0.0818	0.2654
1.0120	36.2631	1.1302	0.0818	0.2683
1.0340	35.8699	1.1660	0.0819	0.2712
1.0560	35.3691	1.1586	0.0815	0.2708
1.0780	34.9943	1.1592	0.0807	0.2704
1.1000	34.7850	1.1411	0.0807	0.2700
1.1220	34.6783	1.1342	0.0811	0.2703

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0704
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	C1
0.0000	34.7878	1.1300	0.0787	0.2674
0.0080	34.8007	1.1477	0.0782	0.2683
0.0160	34.8603	1.1390	0.0776	0.2694
0.0240	34.9937	1.1475	0.0778	0.2724
0.0320	35.2292	1.1707	0.0783	0.2756
0.0400	35.5597	1.1826	0.0798	0.2790
0.0480	35.9781	1.1996	0.0822	0.2838
0.0560	36.5141	1.2295	0.0840	0.2880
0.0640	37.2012	1.2457	0.0845	0.2905
0.0720	38.0200	1.2490	0.0847	0.2926
0.0800	38.9198	1.2595	0.0851	0.2945
0.0880	39.8804	1.2710	0.0849	0.2954
0.0960	40.8978	1.2752	0.0838	0.2956
0.1040	41.9255	1.2779	0.0824	0.2958
0.1120	42.9045	1.2782	0.0814	0.2958
0.1200	43.8265	1.2737	0.0802	0.2952
0.1280	44.6936	1.2679	0.0793	0.2948
0.1360	45.4763	1.2653	0.0789	0.2945
0.1440	46.1582	1.2650	0.0768	0.2935
0.1520	46.7474	1.2622	0.0732	0.2912
0.1600	47.2531	1.2528	0.0706	0.2886
0.1680	47.6836	1.2401	0.0685	0.2863
0.1760	48.0454	1.2279	0.0663	0.2843
0.1840	48.3463	1.2185	0.0648	0.2829
0.1920	48.5861	1.2147	0.0639	0.2816
0.2000	48.7381	1.2103	0.0635	0.2802
0.2080	48.7958	1.2009	0.0630	0.2789
0.2160	48.7888	1.1963	0.0622	0.2776
0.2240	48.7272	1.1931	0.0620	0.2757
0.2320	48.6021	1.1774	0.0616	0.2734
0.2400	48.4035	1.1597	0.0594	0.2714
0.2480	48.1063	1.1547	0.0576	0.2689
0.2560	47.6785	1.1475	0.0586	0.2648
0.2640	47.0880	1.1259	0.0612	0.2603
0.2720	46.3435	1.1038	0.0645	0.2568
0.2800	45.5223	1.0947	0.0673	0.2542
0.2880	44.6701	1.0903	0.0697	0.2518
0.2960	43.7504	1.0782	0.0717	0.2498
0.3040	42.7438	1.0639	0.0740	0.2488
0.3120	41.7155	1.0603	0.0765	0.2482
0.3200	40.7287	1.0637	0.0788	0.2471
0.3280	39.7794	1.0587	0.0802	0.2460
0.3360	38.8671	1.0485	0.0813	0.2465
0.3440	38.0416	1.0532	0.0821	0.2484
0.3520	37.3280	1.0711	0.0824	0.2503
0.3600	36.6991	1.0785	0.0819	0.2516
0.3680	36.1518	1.0766	0.0808	0.2534
0.3760	35.7133	1.0867	0.0797	0.2556
0.3840	35.3735	1.0979	0.0783	0.2567
0.3920	35.1009	1.0865	0.0775	0.2581
0.4000	34.9061	1.0815	0.0782	0.2622
0.4080	34.8132	1.1157	0.0792	0.2672

Straked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

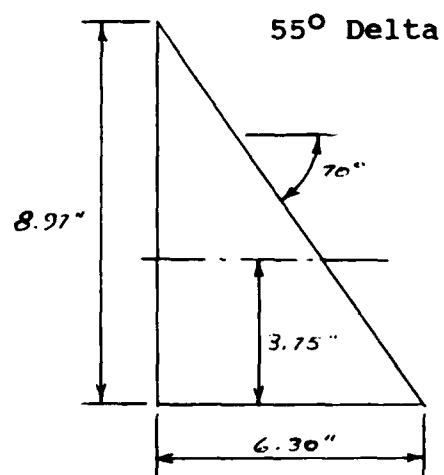
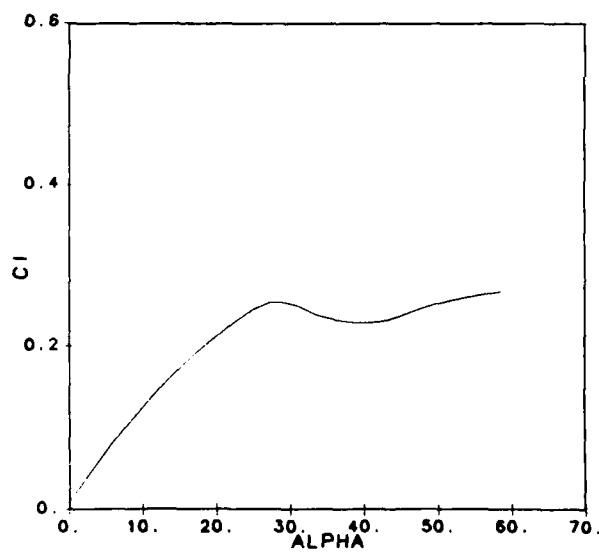
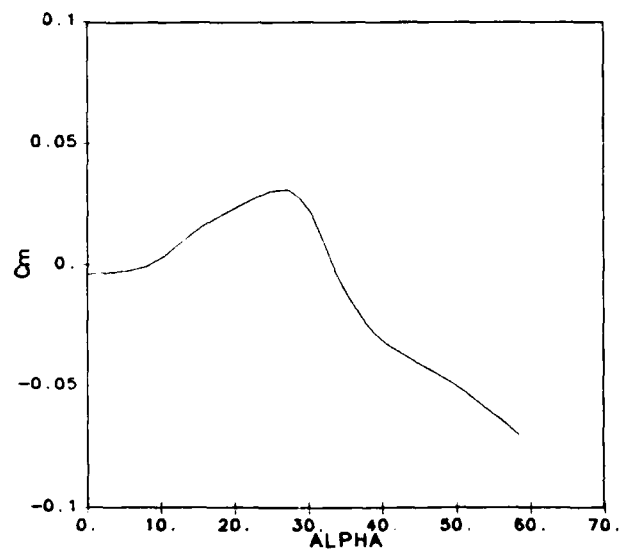
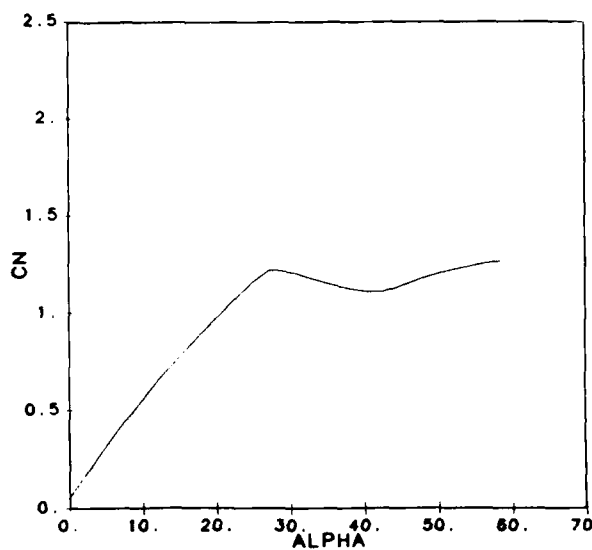
Red. Freq. = 0.0704
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	42.1118	1.1374	0.0745	0.2684
0.0080	42.1694	1.1538	0.0733	0.2702
0.0160	42.2927	1.1560	0.0731	0.2718
0.0240	42.4651	1.1578	0.0740	0.2747
0.0320	42.7283	1.1732	0.0747	0.2781
0.0400	43.1337	1.1892	0.0746	0.2807
0.0480	43.6856	1.1978	0.0737	0.2831
0.0560	44.3466	1.2063	0.0714	0.2852
0.0640	45.0857	1.2128	0.0680	0.2864
0.0720	45.8780	1.2161	0.0646	0.2872
0.0800	46.6843	1.2198	0.0620	0.2883
0.0880	47.4793	1.2263	0.0598	0.2897
0.0960	48.2590	1.2321	0.0580	0.2911
0.1040	49.0080	1.2346	0.0571	0.2929
0.1120	49.7219	1.2350	0.0559	0.2951
0.1200	50.4164	1.2419	0.0536	0.2970
0.1280	51.0970	1.2496	0.0514	0.2981
0.1360	51.7556	1.2539	0.0488	0.2984
0.1440	52.3656	1.2591	0.0457	0.2984
0.1520	52.9033	1.2640	0.0426	0.2980
0.1600	53.3620	1.2618	0.0392	0.2970
0.1680	53.7251	1.2572	0.0366	0.2959
0.1760	53.9886	1.2523	0.0344	0.2948
0.1840	54.1737	1.2454	0.0325	0.2935
0.1920	54.2974	1.2399	0.0317	0.2924
0.2000	54.3663	1.2391	0.0313	0.2911
0.2080	54.3758	1.2349	0.0314	0.2892
0.2160	54.3241	1.2246	0.0321	0.2871
0.2240	54.2198	1.2155	0.0327	0.2849
0.2320	54.0667	1.2062	0.0326	0.2820
0.2400	53.8438	1.1888	0.0318	0.2787
0.2480	53.5043	1.1672	0.0307	0.2754
0.2560	53.0164	1.1508	0.0306	0.2719
0.2640	52.3861	1.1368	0.0319	0.2682
0.2720	51.6420	1.1209	0.0344	0.2643
0.2800	50.8366	1.1033	0.0362	0.2609
0.2880	50.0241	1.0884	0.0367	0.2578
0.2960	49.2377	1.0752	0.0366	0.2551
0.3040	48.4725	1.0626	0.0369	0.2526
0.3120	47.7063	1.0492	0.0383	0.2504
0.3200	46.9395	1.0394	0.0402	0.2485
0.3280	46.1823	1.0345	0.0430	0.2472
0.3360	45.4452	1.0316	0.0469	0.2466
0.3440	44.7558	1.0284	0.0513	0.2474
0.3520	44.1583	1.0355	0.0556	0.2496
0.3600	43.6726	1.0540	0.0602	0.2522
0.3680	43.2793	1.0703	0.0647	0.2545
0.3760	42.9621	1.0803	0.0686	0.2570
0.3840	42.7171	1.0981	0.0721	0.2597
0.3920	42.5182	1.1189	0.0743	0.2617
0.4000	42.3320	1.1241	0.0750	0.2630
0.4080	42.1831	1.1225	0.0746	0.2651
0.4160	42.1331	1.1354	0.0735	0.2675

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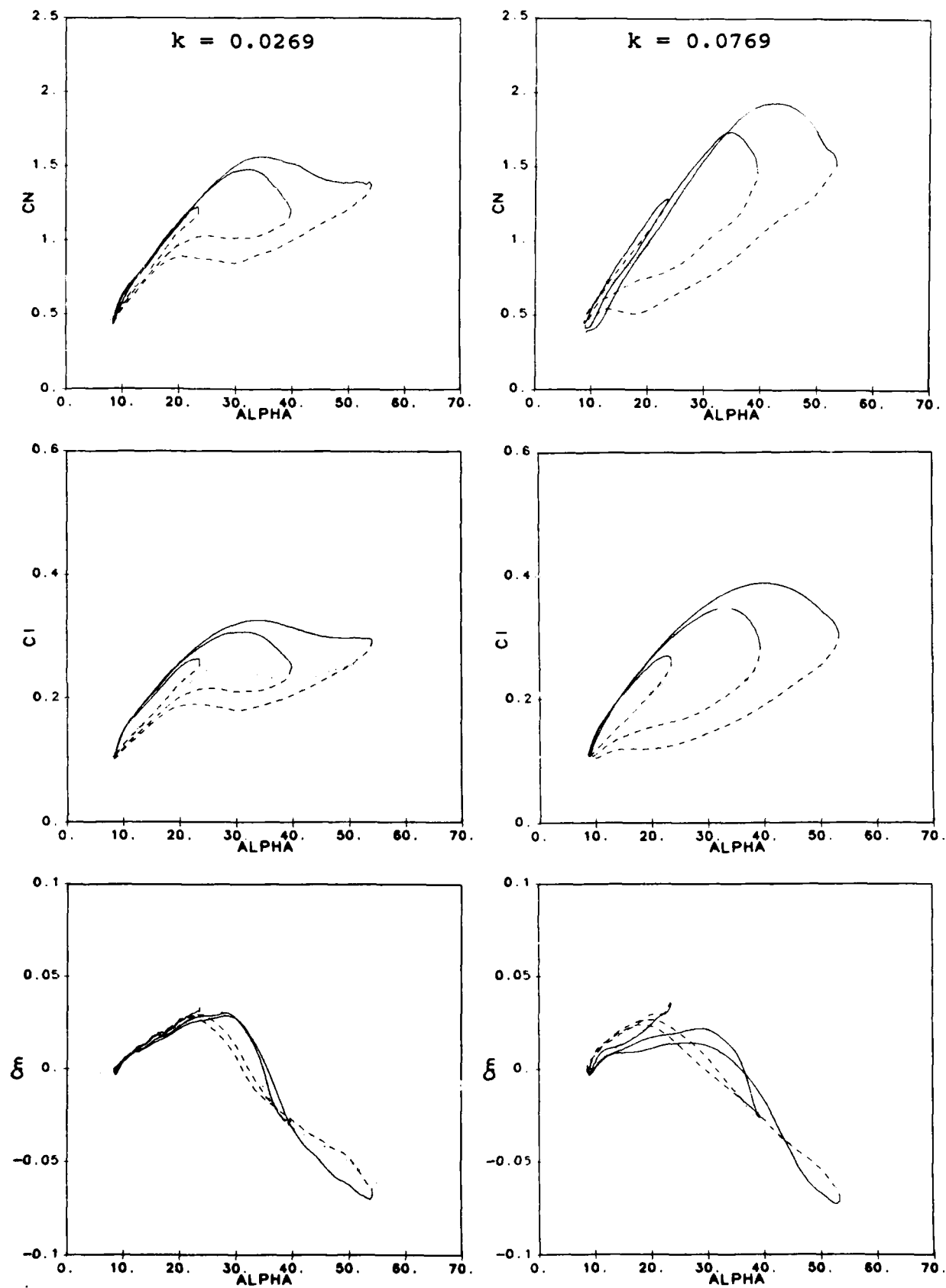
APPENDIX B

PLOTS AND LISTINGS OF THE ADF FORCE AND
MOMENT DATA FOR THE SEMI-SPAN 55° DELTA WING MODEL

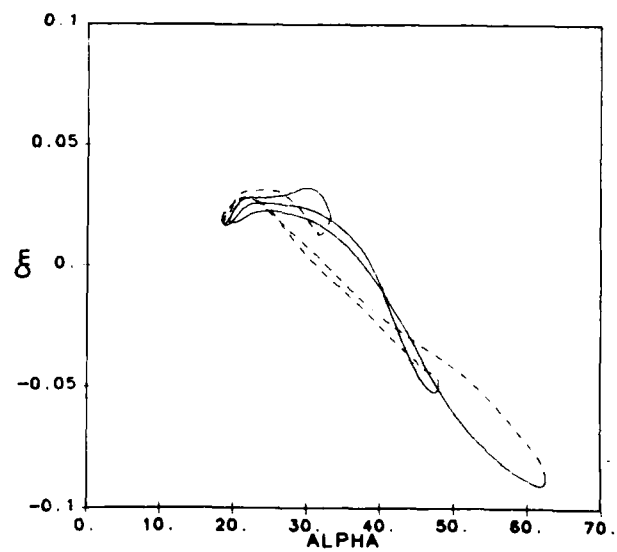
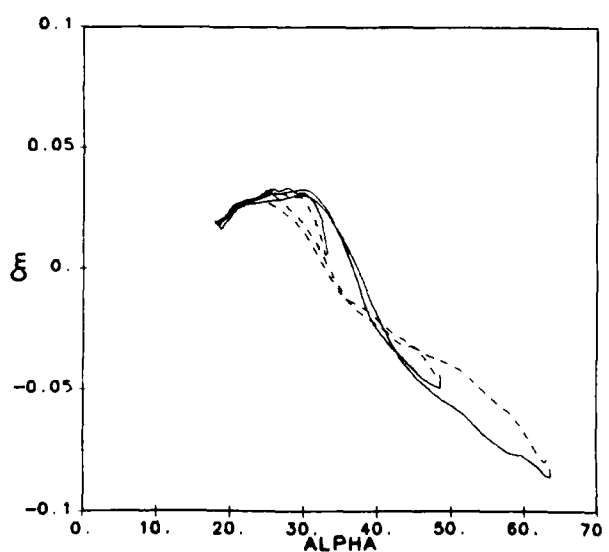
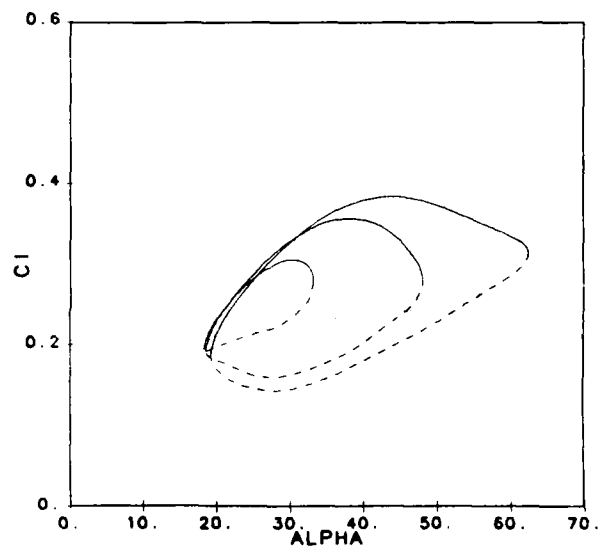
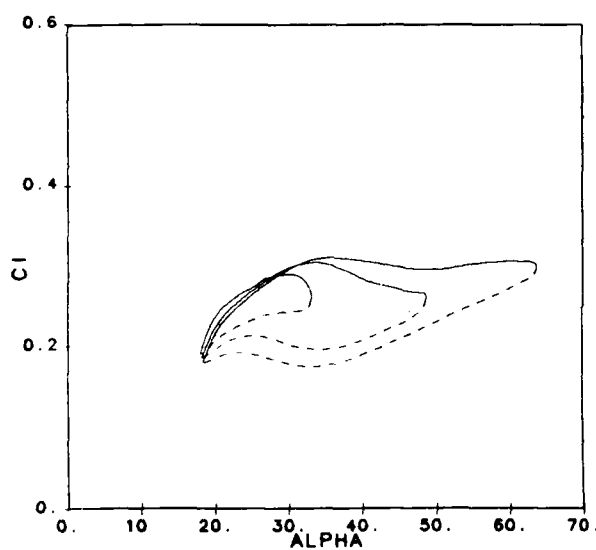
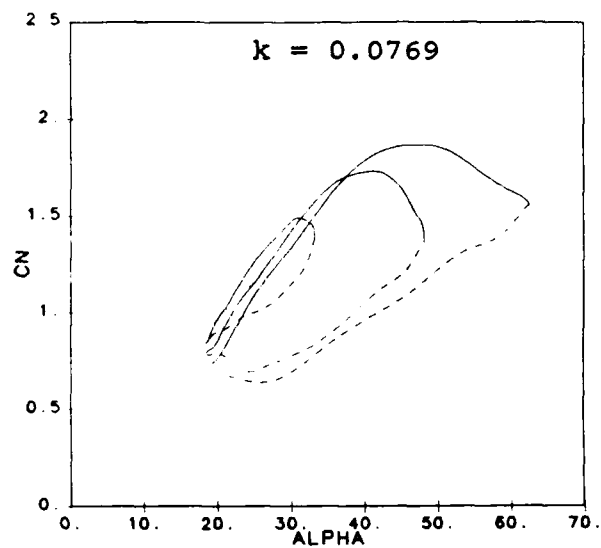
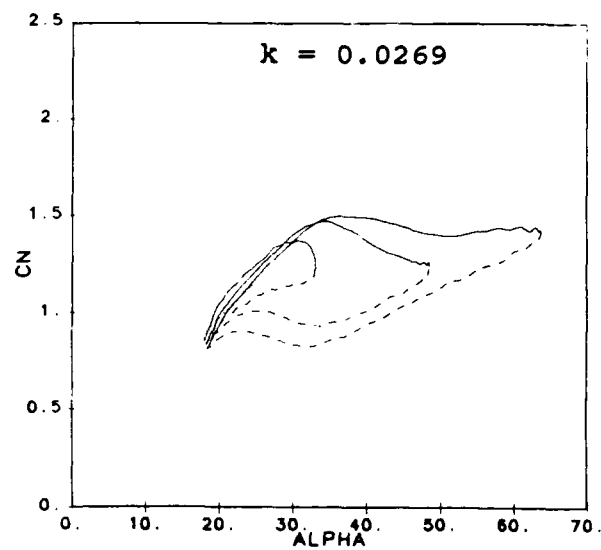


- o All Models Fabricated
of 0.060" Aluminum Sheet
- o All Leading Edges Rounded, All
Side and Trailing Edges Left Square

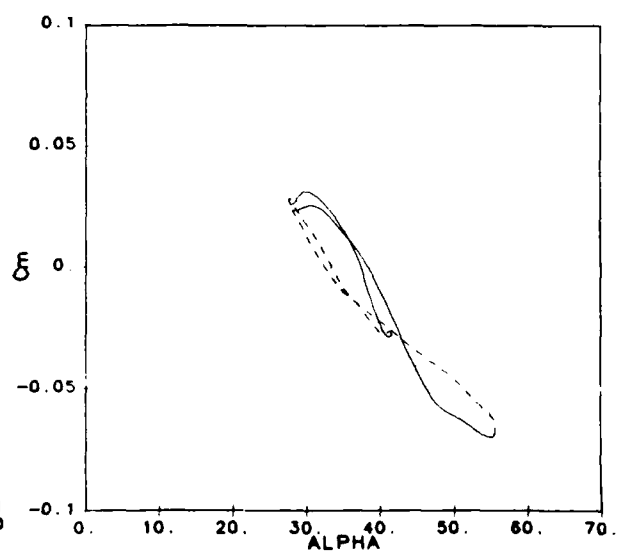
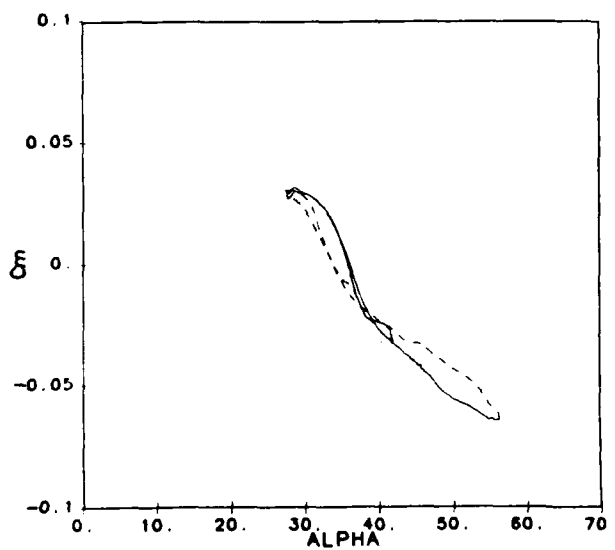
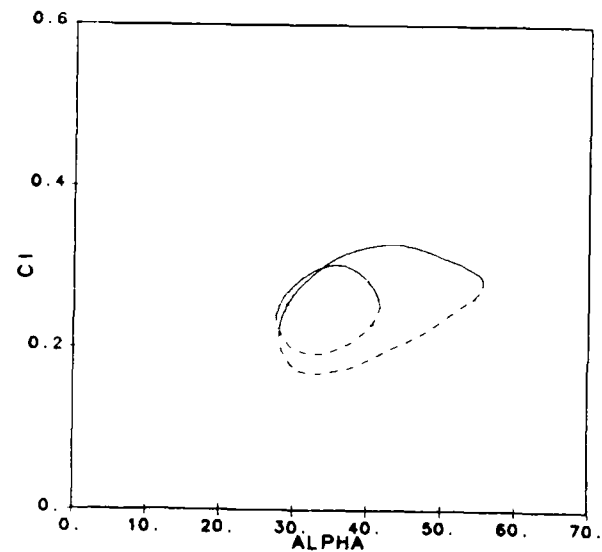
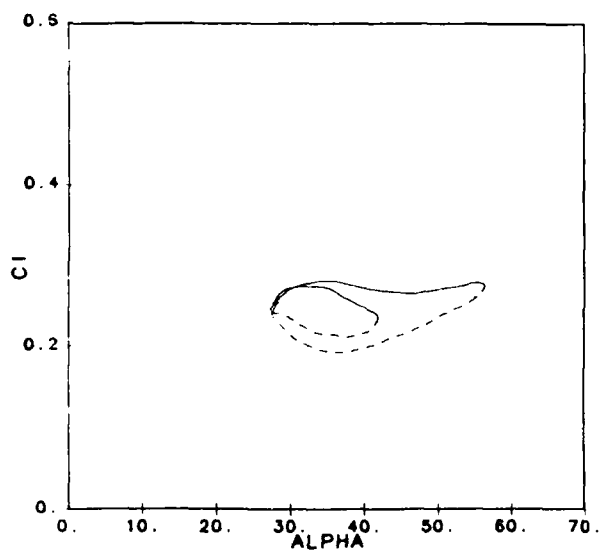
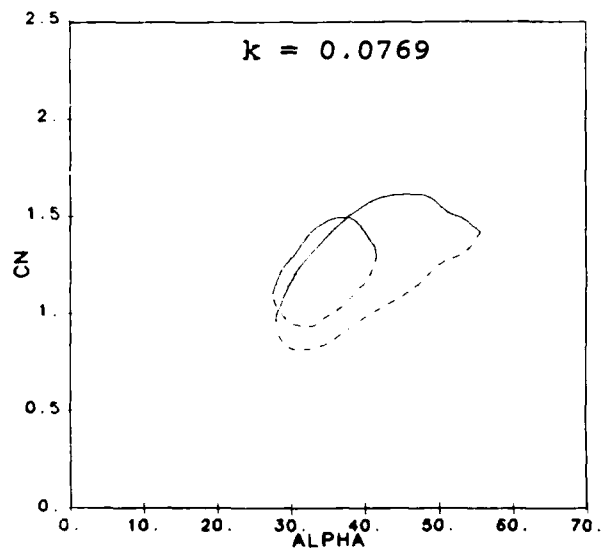
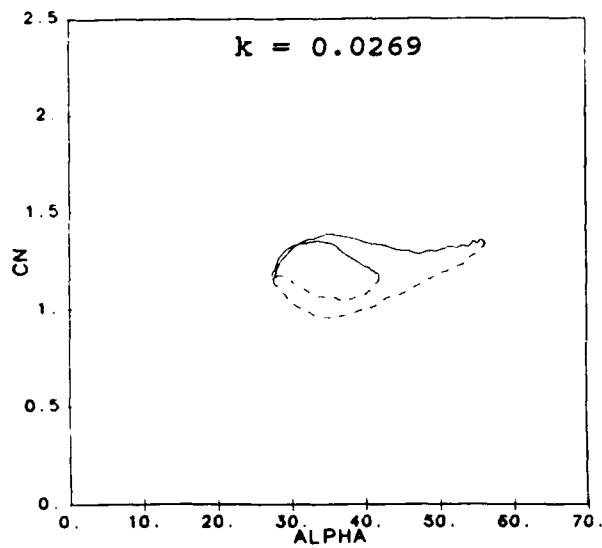
55° Delta, Steady



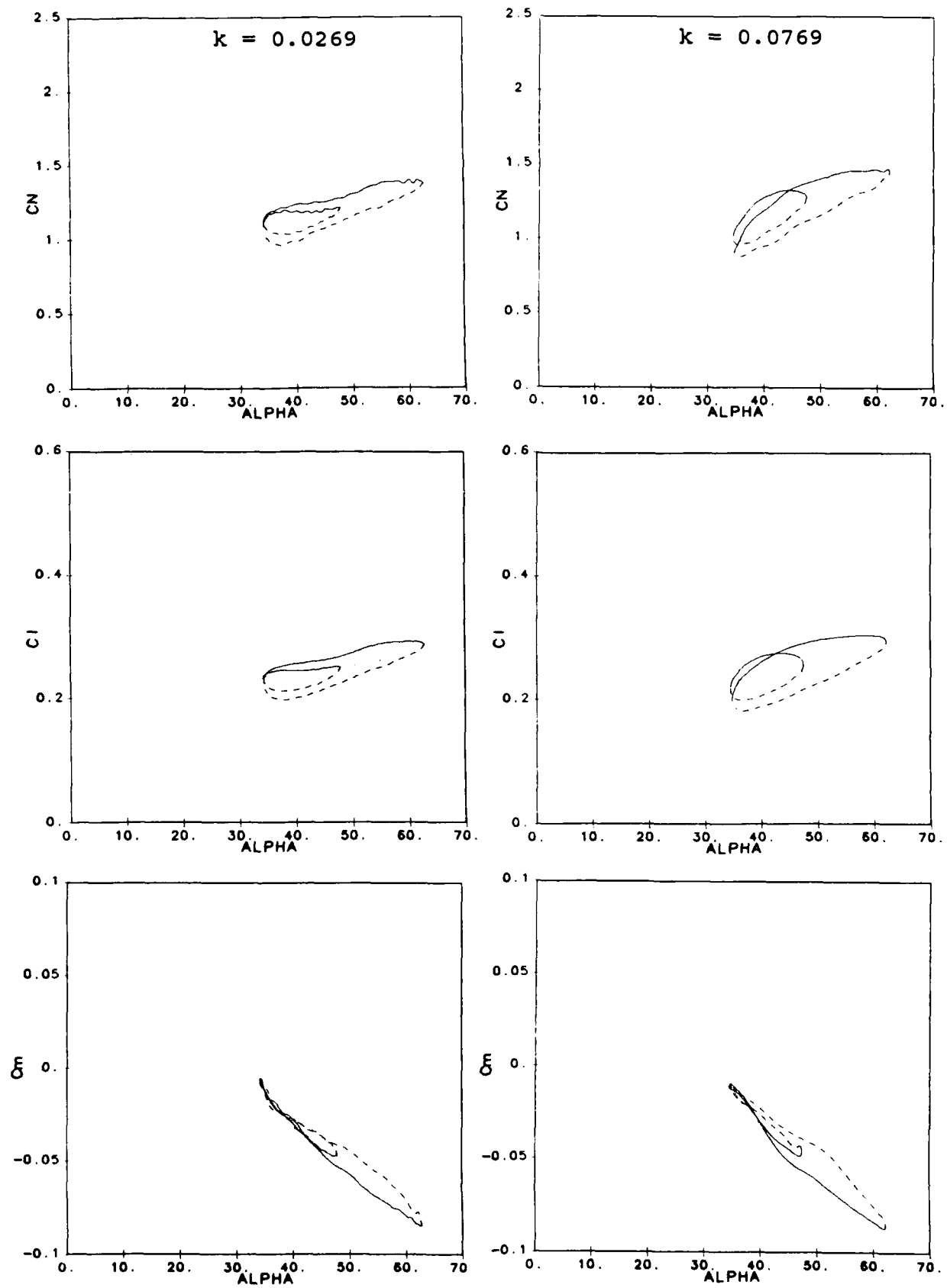
55° Delta, Incidence = 8° to 56°



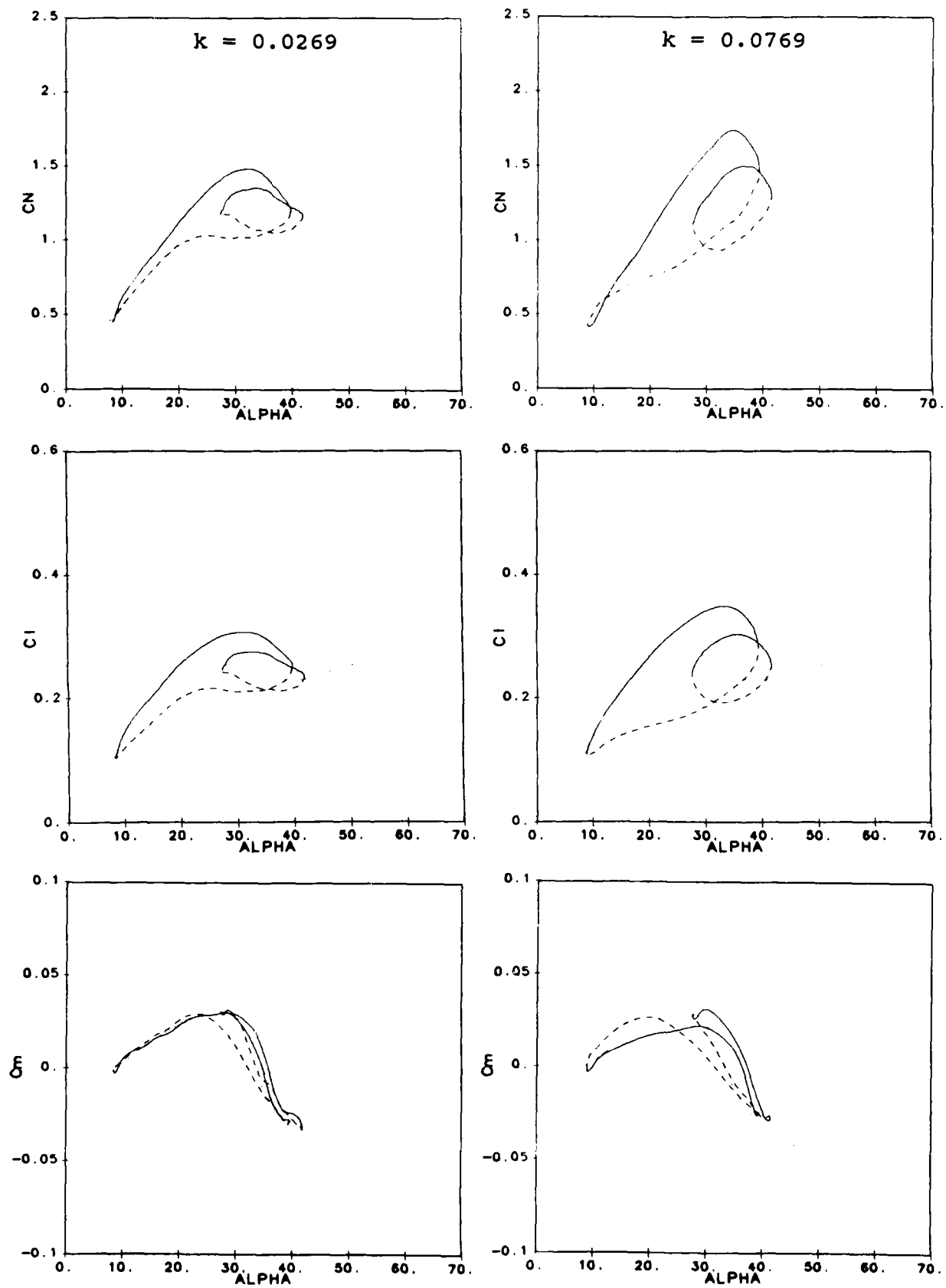
$55^\circ \Delta$, Incidence = 16° to 64°



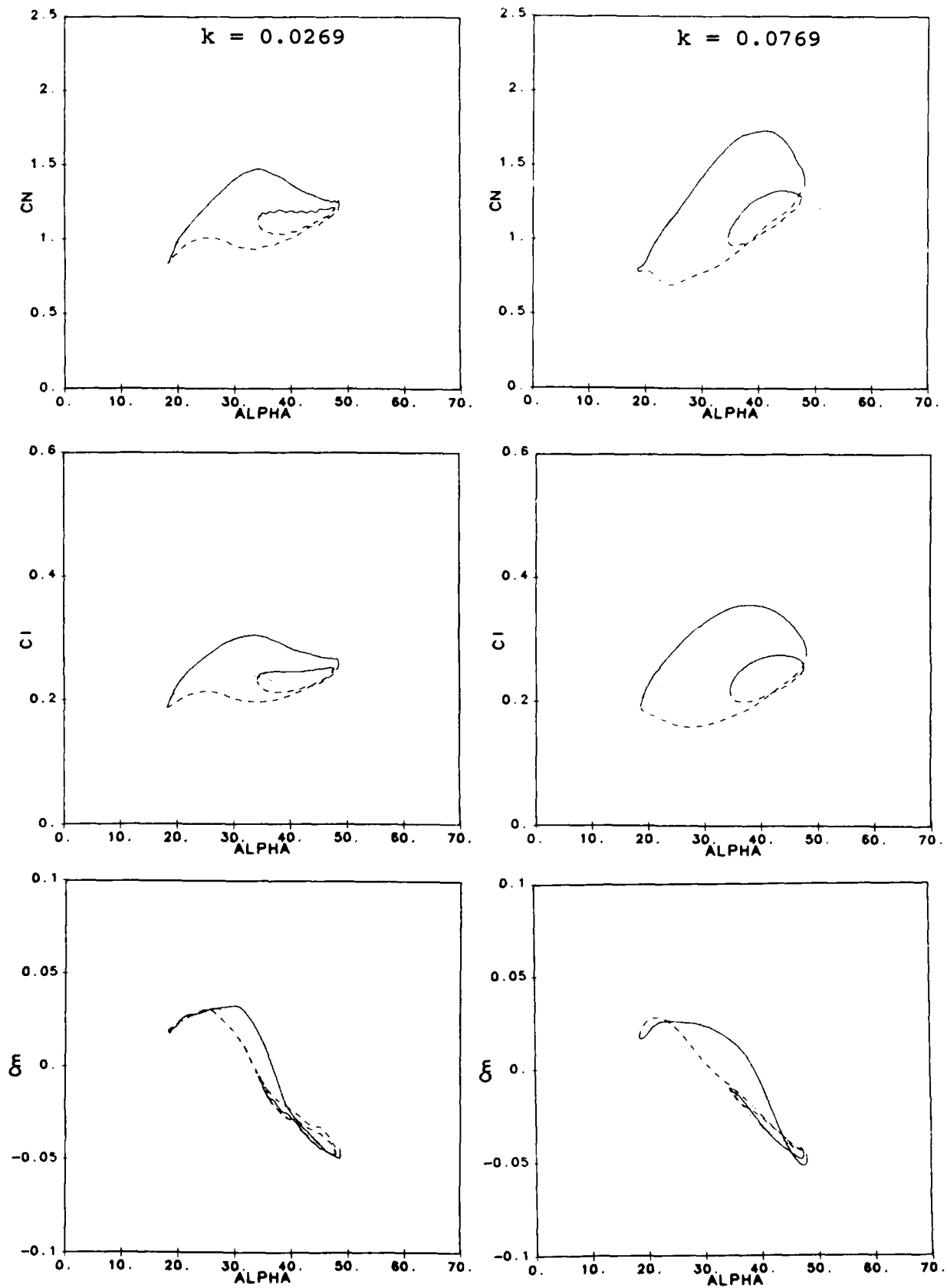
55° Delta, Incidence = 24° to 56°



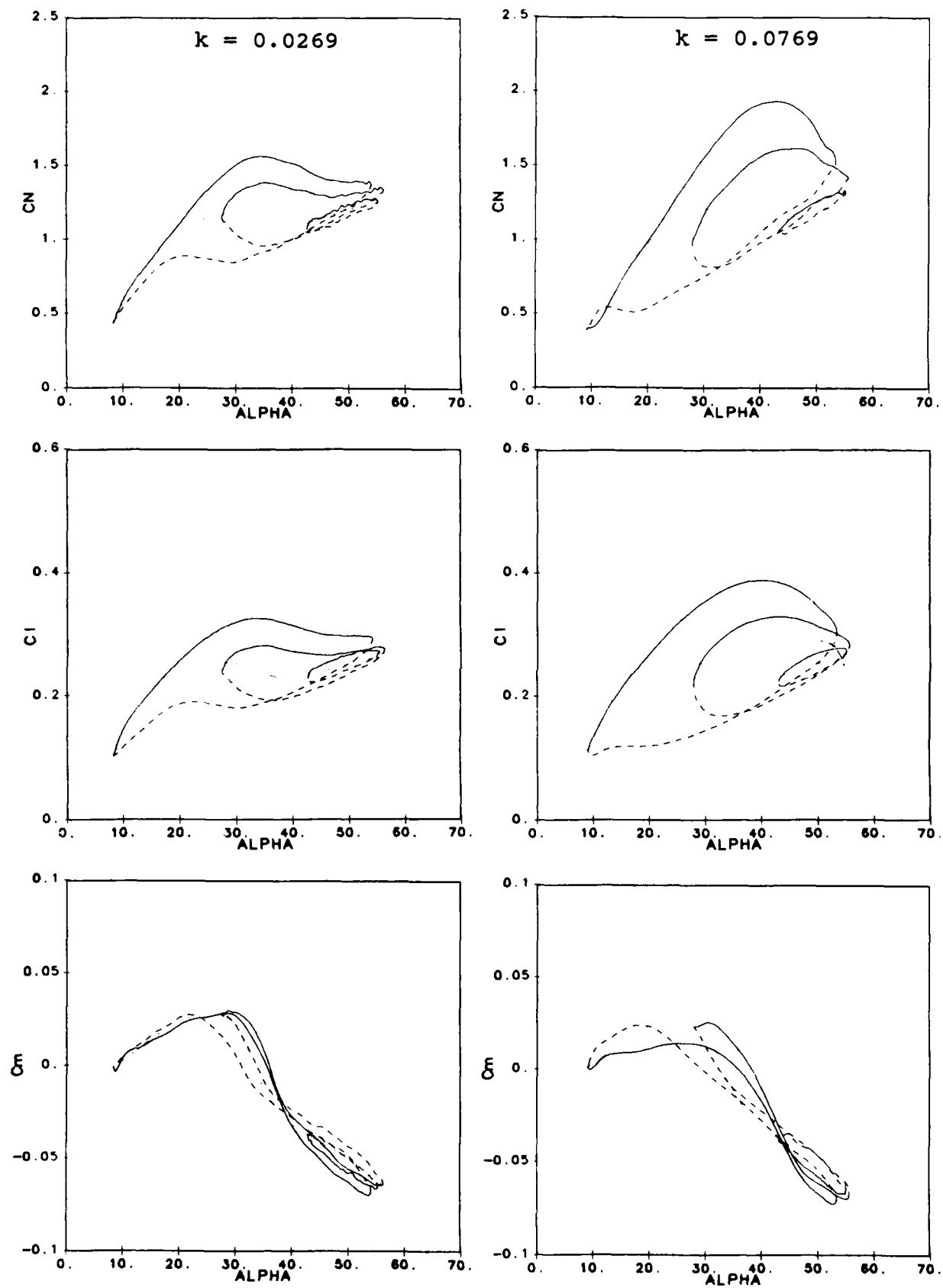
55° Delta, Incidence = 32° to 64°



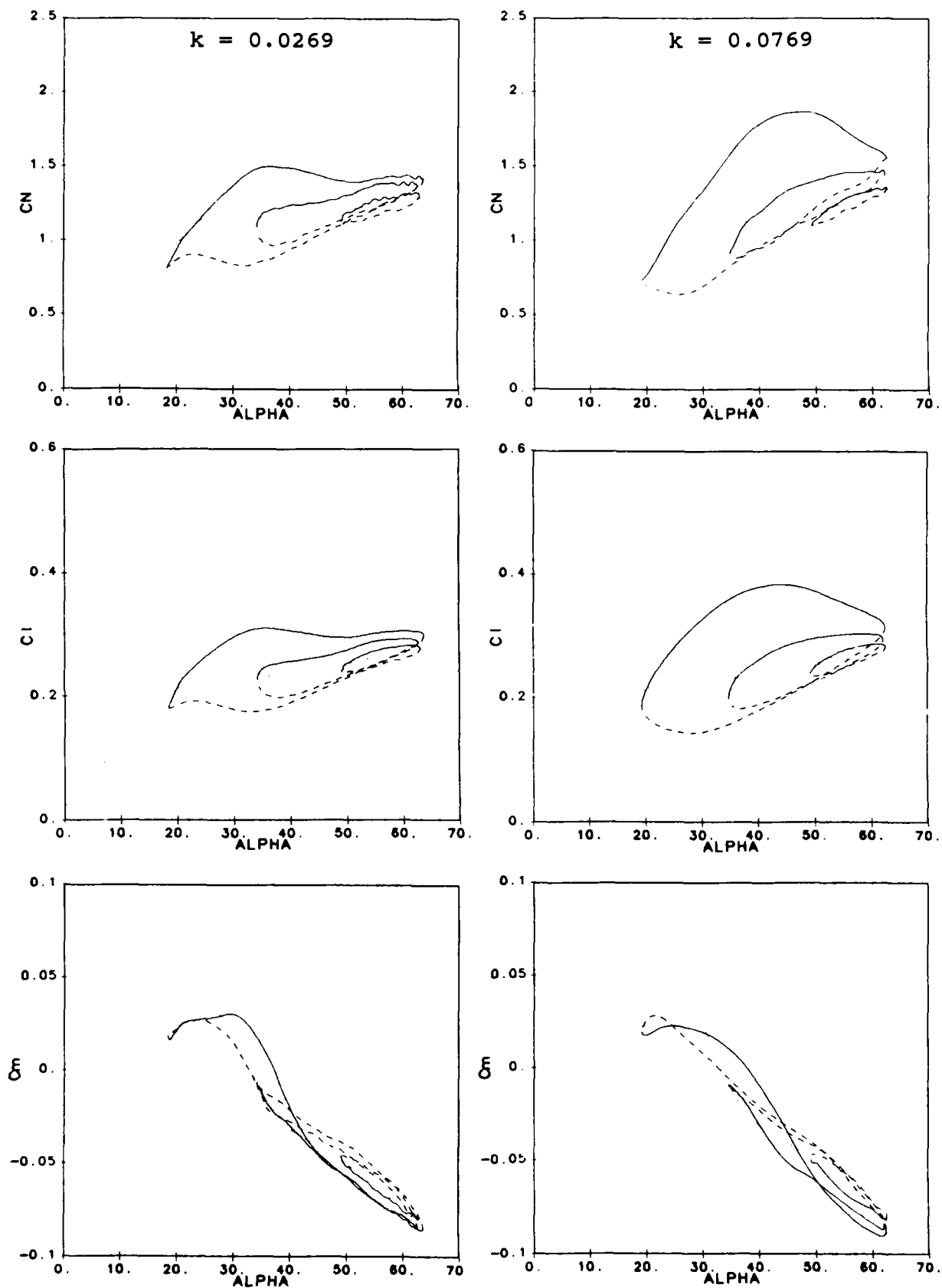
55° Delta, Incidence = 8° to 40°



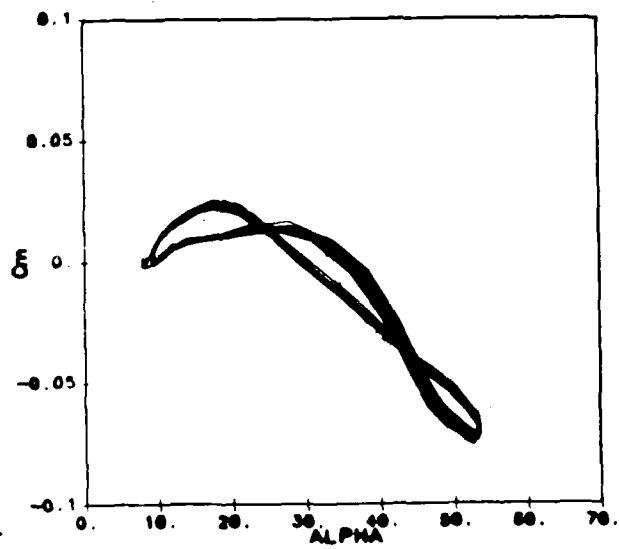
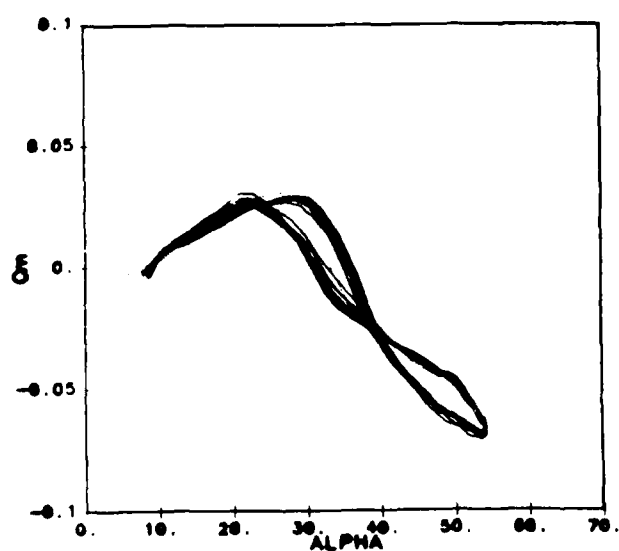
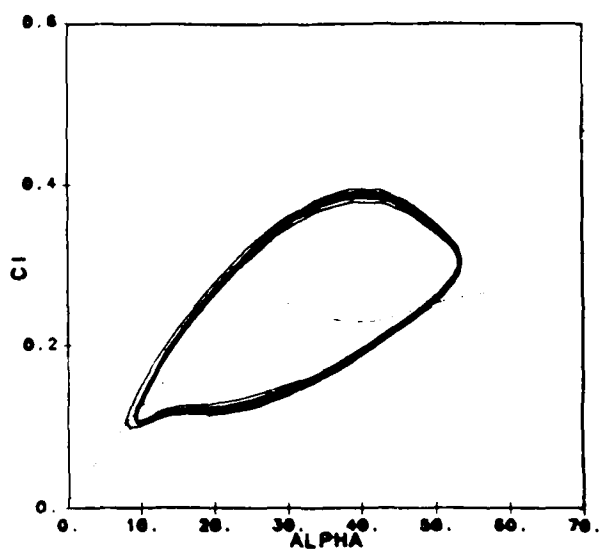
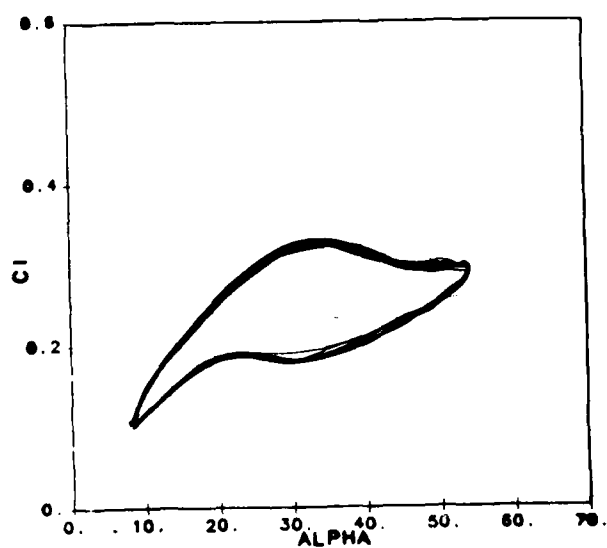
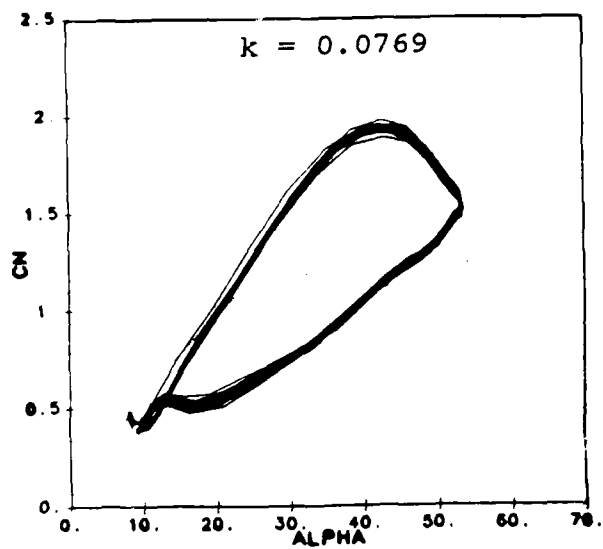
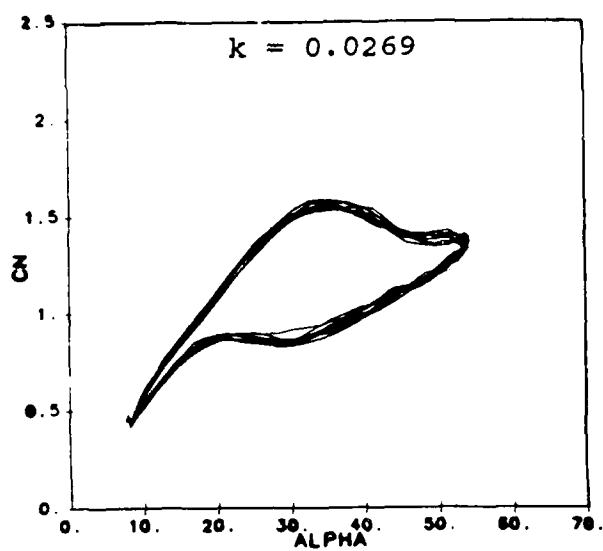
55° Delta, Incidence = 16° to 48°



55° Delta, Incidence = 8° to 56°



55° Delta, Incidence = 16° to 64°



55° Delta, Incidence = 8° to 56°

55 Deg. Delta Static Data
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0000
 Alpha Min. = 0 deg.
 Alpha Max. = 60 deg.

Time	Alpha	CN	Cm	Cl
0.0000	-1.0629	-0.0060	-0.0039	-0.0050
0.0000	8.1504	0.4682	-0.0006	0.1054
0.0000	18.0113	0.8949	0.0202	0.1976
0.0000	27.2851	1.2200	0.0309	0.2544
0.0000	30.5236	1.2063	0.0203	0.2521
0.0000	33.9204	1.1666	-0.0047	0.2384
0.0000	40.5357	1.1115	-0.0326	0.2302
0.0000	42.6504	1.1108	-0.0365	0.2316
0.0000	49.2157	1.1935	-0.0481	0.2512
0.0000	58.5129	1.2675	-0.0700	0.2679

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 8 deg.
 Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	C1
0.0000	8.3987	0.4678	-0.0002	0.1056
0.0220	8.4313	0.4626	-0.0006	0.1070
0.0440	8.6257	0.4778	-0.0015	0.1123
0.0660	8.8744	0.5104	-0.0001	0.1202
0.0880	9.2296	0.5542	0.0011	0.1301
0.1100	9.7487	0.6040	0.0039	0.1419
0.1320	10.6185	0.6598	0.0066	0.1550
0.1540	11.7908	0.7198	0.0096	0.1684
0.1760	13.1925	0.7859	0.0126	0.1822
0.1980	14.6887	0.8565	0.0149	0.1968
0.2200	16.1074	0.9277	0.0183	0.2112
0.2420	17.5631	1.0066	0.0192	0.2259
0.2640	18.8192	1.0639	0.0221	0.2379
0.2860	19.9141	1.1139	0.0252	0.2484
0.3080	20.9245	1.1609	0.0272	0.2568
0.3300	21.8669	1.1953	0.0291	0.2612
0.3520	22.6400	1.2138	0.0302	0.2631
0.3740	23.1527	1.2179	0.0313	0.2638
0.3960	23.4587	1.2240	0.0316	0.2638
0.4180	23.5580	1.2201	0.0319	0.2628
0.4400	23.5568	1.2069	0.0332	0.2598
0.4620	23.5616	1.1940	0.0326	0.2565
0.4840	23.4429	1.1724	0.0307	0.2506
0.5060	22.8892	1.1493	0.0290	0.2450
0.5280	21.8696	1.1158	0.0288	0.2376
0.5500	20.6654	1.0723	0.0272	0.2291
0.5720	19.4487	1.0327	0.0241	0.2186
0.5940	18.2339	0.9636	0.0213	0.2053
0.6160	16.8756	0.8890	0.0197	0.1909
0.6380	15.4818	0.8263	0.0181	0.1769
0.6600	14.2279	0.7654	0.0140	0.1644
0.6820	12.9219	0.7000	0.0115	0.1517
0.7040	11.6649	0.6487	0.0084	0.1401
0.7260	10.5789	0.6002	0.0052	0.1299
0.7480	9.7101	0.5501	0.0035	0.1204
0.7700	9.0627	0.5127	0.0020	0.1130
0.7920	8.6466	0.4824	0.0008	0.1080
0.8140	8.4443	0.4679	-0.0002	0.1056

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 8 deg.
 Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	C1
0.0000	8.6952	0.4488	0.0003	0.1094
0.0080	8.8043	0.4494	-0.0016	0.1143
0.0160	9.0786	0.4609	-0.0022	0.1225
0.0240	9.5393	0.4984	0.0001	0.1337
0.0320	10.2208	0.5555	0.0049	0.1468
0.0400	11.1646	0.6167	0.0090	0.1618
0.0480	12.3705	0.6937	0.0110	0.1787
0.0560	13.7617	0.7877	0.0119	0.1958
0.0640	15.2213	0.8731	0.0136	0.2115
0.0720	16.6541	0.9510	0.0161	0.2263
0.0800	17.9892	1.0290	0.0188	0.2397
0.0880	19.1811	1.0957	0.0215	0.2505
0.0960	20.2214	1.1543	0.0246	0.2589
0.1040	21.1228	1.2063	0.0274	0.2647
0.1120	21.8881	1.2400	0.0289	0.2683
0.1200	22.5027	1.2613	0.0297	0.2703
0.1280	22.9628	1.2758	0.0311	0.2706
0.1360	23.2886	1.2851	0.0328	0.2693
0.1440	23.4811	1.2860	0.0344	0.2662
0.1520	23.5172	1.2759	0.0357	0.2611
0.1600	23.3741	1.2604	0.0354	0.2544
0.1680	23.0060	1.2331	0.0327	0.2463
0.1760	22.3389	1.1878	0.0300	0.2366
0.1840	21.3577	1.1337	0.0296	0.2251
0.1920	20.1532	1.0721	0.0294	0.2123
0.2000	18.8380	1.0057	0.0269	0.1994
0.2080	17.4655	0.9390	0.0238	0.1864
0.2160	16.0705	0.8699	0.0217	0.1730
0.2240	14.7160	0.8017	0.0191	0.1601
0.2320	13.4485	0.7384	0.0162	0.1482
0.2400	12.2870	0.6754	0.0140	0.1375
0.2480	11.2678	0.6175	0.0121	0.1285
0.2560	10.4320	0.5745	0.0096	0.1213
0.2640	9.7839	0.5434	0.0067	0.1155
0.2720	9.2923	0.5132	0.0050	0.1110
0.2800	8.9389	0.4821	0.0042	0.1081
0.2880	8.7351	0.4586	0.0026	0.1075
0.2960	8.6955	0.4499	0.0003	0.1099

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 8 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.3867	0.4520	-0.0008	0.1049
0.0220	8.5429	0.4571	-0.0021	0.1094
0.0440	8.9050	0.4944	-0.0018	0.1199
0.0660	9.4425	0.5544	0.0016	0.1351
0.0880	10.5176	0.6406	0.0062	0.1543
0.1100	12.3351	0.7380	0.0096	0.1769
0.1320	14.6717	0.8535	0.0131	0.2013
0.1540	17.2080	0.9759	0.0176	0.2278
0.1760	19.8965	1.1041	0.0226	0.2549
0.1980	22.7873	1.2382	0.0276	0.2771
0.2200	25.7673	1.3528	0.0287	0.2942
0.2420	28.3892	1.4315	0.0302	0.3045
0.2640	30.9435	1.4727	0.0241	0.3074
0.2860	33.3993	1.4733	0.0114	0.3047
0.3080	35.2780	1.4323	-0.0047	0.2962
0.3300	36.7452	1.3702	-0.0194	0.2847
0.3520	38.0240	1.3175	-0.0254	0.2737
0.3740	39.0020	1.2700	-0.0273	0.2647
0.3960	39.6230	1.2257	-0.0279	0.2579
0.4180	39.7972	1.2005	-0.0283	0.2513
0.4400	39.6674	1.1740	-0.0279	0.2447
0.4620	39.4026	1.1468	-0.0293	0.2381
0.4840	38.8383	1.1232	-0.0289	0.2314
0.5060	37.6173	1.0912	-0.0230	0.2241
0.5280	35.8906	1.0541	-0.0171	0.2171
0.5500	33.8592	1.0262	-0.0081	0.2126
0.5720	31.3833	1.0198	0.0048	0.2120
0.5940	28.7529	1.0121	0.0178	0.2123
0.6160	26.1459	1.0274	0.0256	0.2161
0.6380	23.3003	1.0203	0.0292	0.2142
0.6600	20.4995	0.9732	0.0268	0.2039
0.6820	17.9674	0.8977	0.0209	0.1873
0.7040	15.6109	0.8024	0.0173	0.1676
0.7260	13.4983	0.7094	0.0121	0.1499
0.7480	11.6064	0.6286	0.0082	0.1340
0.7700	10.1313	0.5549	0.0039	0.1207
0.7920	9.1153	0.5001	0.0017	0.1107
0.8140	8.5566	0.4632	0.0000	0.1052
0.8360	8.3851	0.4507	-0.0008	0.1044

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 8 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	C1
0.0000	8.9662	0.4317	0.0002	0.1083
0.0080	9.0016	0.4215	-0.0028	0.1135
0.0160	9.3907	0.4142	-0.0025	0.1245
0.0240	10.2219	0.4510	0.0011	0.1425
0.0320	11.6251	0.5599	0.0057	0.1664
0.0400	13.6222	0.6955	0.0088	0.1936
0.0480	16.0750	0.8225	0.0122	0.2233
0.0560	18.8161	0.9774	0.0159	0.2543
0.0640	21.7118	1.1589	0.0180	0.2833
0.0720	24.6292	1.3290	0.0195	0.3080
0.0800	27.4345	1.4751	0.0215	0.3275
0.0880	30.0289	1.5911	0.0214	0.3411
0.0960	32.3441	1.6871	0.0174	0.3481
0.1040	34.3044	1.7367	0.0119	0.3474
0.1120	35.8727	1.7213	0.0046	0.3412
0.1200	37.0749	1.6794	-0.0055	0.3322
0.1280	37.9910	1.6301	-0.0162	0.3215
0.1360	38.6976	1.5903	-0.0236	0.3098
0.1440	39.1835	1.5381	-0.0261	0.2968
0.1520	39.3699	1.4610	-0.0258	0.2838
0.1600	39.1929	1.4121	-0.0246	0.2706
0.1680	38.5935	1.3666	-0.0228	0.2550
0.1760	37.4784	1.2677	-0.0201	0.2384
0.1840	35.7886	1.1663	-0.0152	0.2234
0.1920	33.5907	1.1000	-0.0075	0.2082
0.2000	31.0521	1.0229	0.0022	0.1921
0.2080	28.3374	0.9263	0.0112	0.1784
0.2160	25.5369	0.8434	0.0184	0.1689
0.2240	22.7409	0.7868	0.0242	0.1615
0.2320	20.0928	0.7551	0.0267	0.1552
0.2400	17.6774	0.7273	0.0256	0.1487
0.2480	15.5059	0.6808	0.0226	0.1410
0.2560	13.6157	0.6353	0.0187	0.1331
0.2640	12.0628	0.6050	0.0145	0.1249
0.2720	10.8501	0.5634	0.0103	0.1165
0.2800	9.9349	0.5034	0.0073	0.1101
0.2880	9.2997	0.4555	0.0045	0.1073
0.2960	8.9740	0.4345	0.0007	0.1082

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 8 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.3695	0.4349	-0.0008	0.1022
0.0220	8.5247	0.4388	-0.0021	0.1075
0.0440	8.9859	0.4834	-0.0021	0.1212
0.0660	9.8170	0.5605	0.0030	0.1416
0.0880	11.6238	0.6832	0.0085	0.1690
0.1100	14.4765	0.8293	0.0121	0.2015
0.1320	17.8636	1.0006	0.0175	0.2368
0.1540	21.6083	1.1763	0.0244	0.2711
0.1760	25.7567	1.3606	0.0271	0.3008
0.1980	29.8644	1.4983	0.0275	0.3194
0.2200	33.9987	1.5619	0.0102	0.3262
0.2420	37.7373	1.5416	-0.0165	0.3205
0.2640	41.4531	1.4975	-0.0386	0.3102
0.2860	44.7646	1.4274	-0.0489	0.3010
0.3080	47.4583	1.4000	-0.0576	0.2982
0.3300	49.5685	1.3906	-0.0615	0.2976
0.3520	51.3206	1.3964	-0.0658	0.2977
0.3740	52.7142	1.3913	-0.0685	0.2965
0.3960	53.6022	1.3930	-0.0699	0.2967
0.4180	54.0850	1.3791	-0.0686	0.2946
0.4400	54.1003	1.3699	-0.0653	0.2903
0.4620	53.8404	1.3458	-0.0633	0.2833
0.4840	53.0131	1.2996	-0.0604	0.2732
0.5060	51.2279	1.2488	-0.0522	0.2606
0.5280	49.0214	1.1884	-0.0454	0.2472
0.5500	46.4117	1.1369	-0.0412	0.2342
0.5720	43.1803	1.0687	-0.0352	0.2189
0.5940	39.3435	0.9879	-0.0259	0.2029
0.6160	35.3758	0.9194	-0.0170	0.1906
0.6380	31.2929	0.8594	-0.0008	0.1814
0.6600	27.2986	0.8585	0.0174	0.1848
0.6820	23.3666	0.8778	0.0269	0.1902
0.7040	19.6668	0.8808	0.0251	0.1858
0.7260	16.4256	0.8120	0.0190	0.1690
0.7480	13.6809	0.7009	0.0129	0.1472
0.7700	11.3560	0.5946	0.0082	0.1279
0.7920	9.6957	0.5163	0.0036	0.1137
0.8140	8.7552	0.4573	0.0009	0.1048
0.8360	8.3947	0.4425	-0.0004	0.1022

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 8 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	9.2780	0.3866	0.0025	0.1090
0.0080	9.3794	0.3967	-0.0001	0.1191
0.0160	10.1388	0.4016	-0.0010	0.1357
0.0240	11.7031	0.4574	0.0056	0.1631
0.0320	14.1966	0.6348	0.0087	0.2006
0.0400	17.5110	0.8518	0.0095	0.2413
0.0480	21.3687	1.0575	0.0123	0.2821
0.0560	25.5278	1.3031	0.0142	0.3213
0.0640	29.7772	1.5406	0.0127	0.3531
0.0720	33.9438	1.7375	0.0058	0.3754
0.0800	37.8573	1.8770	-0.0067	0.3863
0.0880	41.3618	1.9272	-0.0241	0.3874
0.0960	44.3546	1.9234	-0.0425	0.3809
0.1040	46.8209	1.8756	-0.0561	0.3689
0.1120	48.8172	1.8027	-0.0637	0.3552
0.1200	50.4023	1.7104	-0.0674	0.3423
0.1280	51.6392	1.6331	-0.0707	0.3323
0.1360	52.5725	1.6056	-0.0724	0.3231
0.1440	53.1847	1.5704	-0.0718	0.3130
0.1520	53.3838	1.5195	-0.0688	0.3023
0.1600	53.0647	1.4915	-0.0655	0.2903
0.1680	52.0990	1.4444	-0.0614	0.2751
0.1760	50.3663	1.3456	-0.0548	0.2577
0.1840	47.8756	1.2562	-0.0484	0.2400
0.1920	44.7373	1.1880	-0.0412	0.2199
0.2000	41.0958	1.0843	-0.0306	0.1969
0.2080	37.1137	0.9454	-0.0191	0.1749
0.2160	32.9664	0.8194	-0.0087	0.1563
0.2240	28.8557	0.7256	0.0017	0.1408
0.2320	24.9799	0.6434	0.0128	0.1285
0.2400	21.4652	0.5637	0.0213	0.1212
0.2480	18.3558	0.5164	0.0240	0.1194
0.2560	15.6737	0.5213	0.0217	0.1196
0.2640	13.4656	0.5422	0.0176	0.1170
0.2720	11.7567	0.5303	0.0142	0.1113
0.2800	10.4991	0.4735	0.0109	0.1060
0.2880	9.6499	0.4068	0.0064	0.1049

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	Cl
0.0000	18.0816	0.8549	0.0189	0.1920
0.0220	18.1812	0.8669	0.0189	0.1951
0.0440	18.4043	0.8903	0.0185	0.2013
0.0660	18.6968	0.9220	0.0203	0.2092
0.0880	19.1490	0.9744	0.0209	0.2198
0.1100	19.7098	1.0256	0.0232	0.2305
0.1320	20.5265	1.0682	0.0262	0.2419
0.1540	21.7728	1.1294	0.0277	0.2536
0.1760	23.2975	1.1909	0.0288	0.2643
0.1980	24.8093	1.2369	0.0318	0.2722
0.2200	26.3020	1.2874	0.0323	0.2808
0.2420	27.6067	1.3417	0.0332	0.2865
0.2640	28.7645	1.3605	0.0315	0.2892
0.2860	29.8195	1.3643	0.0314	0.2897
0.3080	30.9422	1.3724	0.0288	0.2890
0.3300	31.8696	1.3618	0.0239	0.2848
0.3520	32.4982	1.3325	0.0185	0.2779
0.3740	32.8949	1.2884	0.0119	0.2698
0.3960	33.1130	1.2473	0.0073	0.2639
0.4180	33.1380	1.2292	0.0067	0.2604
0.4400	32.9679	1.2115	0.0058	0.2549
0.4620	32.8521	1.1841	0.0057	0.2496
0.4840	32.6631	1.1708	0.0086	0.2469
0.5060	32.0956	1.1673	0.0152	0.2450
0.5280	31.0593	1.1530	0.0223	0.2441
0.5500	29.8758	1.1462	0.0288	0.2423
0.5720	28.7103	1.1433	0.0296	0.2421
0.5940	27.4568	1.1197	0.0306	0.2404
0.6160	26.0817	1.1042	0.0318	0.2360
0.6380	24.6353	1.0812	0.0307	0.2307
0.6600	23.2462	1.0413	0.0283	0.2257
0.6820	21.8959	1.0016	0.0267	0.2187
0.7040	20.7192	0.9792	0.0247	0.2115
0.7260	19.8099	0.9369	0.0226	0.2047
0.7480	19.1409	0.8994	0.0209	0.1985
0.7700	18.5735	0.8815	0.0194	0.1948
0.7920	18.2305	0.8641	0.0192	0.1919
0.8140	18.0846	0.8538	0.0193	0.1914

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	C1
0.0000	18.3826	0.8463	0.0189	0.1950
0.0080	18.4711	0.8461	0.0178	0.1994
0.0160	18.7373	0.8546	0.0172	0.2071
0.0240	19.2016	0.9020	0.0183	0.2175
0.0320	19.8823	0.9619	0.0220	0.2284
0.0400	20.8052	1.0106	0.0260	0.2406
0.0480	21.9769	1.0794	0.0279	0.2548
0.0560	23.3452	1.1684	0.0279	0.2688
0.0640	24.8162	1.2508	0.0280	0.2807
0.0720	26.2835	1.3230	0.0287	0.2906
0.0800	27.6444	1.3790	0.0297	0.2982
0.0880	28.8476	1.4251	0.0312	0.3033
0.0960	29.9047	1.4677	0.0321	0.3056
0.1040	30.8296	1.4876	0.0317	0.3054
0.1120	31.6043	1.4849	0.0301	0.3034
0.1200	32.2155	1.4715	0.0279	0.3001
0.1280	32.6791	1.4611	0.0251	0.2959
0.1360	32.9944	1.4464	0.0225	0.2902
0.1440	33.1375	1.4091	0.0206	0.2833
0.1520	33.1100	1.3752	0.0190	0.2758
0.1600	32.9304	1.3512	0.0175	0.2672
0.1680	32.5807	1.3048	0.0151	0.2578
0.1760	31.9903	1.2424	0.0129	0.2491
0.1840	31.1126	1.1919	0.0145	0.2407
0.1920	30.0023	1.1479	0.0196	0.2321
0.2000	28.7508	1.0985	0.0243	0.2247
0.2080	27.3985	1.0497	0.0280	0.2194
0.2160	25.9854	1.0153	0.0305	0.2155
0.2240	24.5913	0.9973	0.0313	0.2120
0.2320	23.2774	0.9764	0.0310	0.2080
0.2400	22.0767	0.9421	0.0307	0.2040
0.2480	21.0379	0.9150	0.0296	0.2008
0.2560	20.2078	0.9046	0.0269	0.1982
0.2640	19.5790	0.8929	0.0239	0.1955
0.2720	19.1001	0.8739	0.0223	0.1934
0.2800	18.7325	0.8544	0.0218	0.1923
0.2880	18.4897	0.8444	0.0205	0.1926
0.2960	18.4015	0.8470	0.0190	0.1948

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	18.2721	0.8339	0.0192	0.1871
0.0220	18.4458	0.8422	0.0183	0.1909
0.0440	18.8233	0.8799	0.0190	0.1993
0.0660	19.4179	0.9300	0.0208	0.2120
0.0880	20.4099	1.0104	0.0246	0.2276
0.1100	22.1246	1.0949	0.0279	0.2466
0.1320	24.5442	1.1958	0.0294	0.2656
0.1540	27.0970	1.2970	0.0313	0.2827
0.1760	29.6550	1.3922	0.0326	0.2962
0.1980	32.4618	1.4557	0.0268	0.3036
0.2200	35.1502	1.4668	0.0118	0.3028
0.2420	37.5055	1.4307	-0.0075	0.2954
0.2640	39.8719	1.3742	-0.0246	0.2847
0.2860	42.2264	1.3198	-0.0335	0.2772
0.3080	44.1960	1.2920	-0.0395	0.2729
0.3300	45.7704	1.2680	-0.0442	0.2690
0.3520	47.0327	1.2541	-0.0470	0.2673
0.3740	47.9753	1.2578	-0.0485	0.2666
0.3960	48.4890	1.2615	-0.0492	0.2657
0.4180	48.6523	1.2410	-0.0475	0.2615
0.4400	48.6251	1.2292	-0.0455	0.2574
0.4620	48.4274	1.1998	-0.0426	0.2509
0.4840	48.1044	1.1836	-0.0437	0.2455
0.5060	47.1885	1.1559	-0.0403	0.2382
0.5280	45.5880	1.1157	-0.0338	0.2287
0.5500	43.6412	1.0850	-0.0319	0.2219
0.5720	41.2161	1.0313	-0.0262	0.2119
0.5940	38.5981	0.9893	-0.0205	0.2035
0.6160	36.0597	0.9560	-0.0134	0.1980
0.6380	33.4345	0.9336	0.0003	0.1970
0.6600	30.6266	0.9493	0.0157	0.2010
0.6820	28.1532	0.9880	0.0241	0.2087
0.7040	25.7816	1.0075	0.0301	0.2130
0.7260	23.5347	0.9990	0.0291	0.2117
0.7480	21.5680	0.9665	0.0265	0.2051
0.7700	20.1263	0.9115	0.0237	0.1972
0.7920	19.1873	0.8794	0.0208	0.1915
0.8140	18.5334	0.8517	0.0198	0.1878
0.8360	18.2797	0.8343	0.0192	0.1872

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	C1
0.0000	18.6461	0.7940	0.0184	0.1923
0.0080	18.7493	0.8078	0.0167	0.2004
0.0160	19.2407	0.8133	0.0167	0.2129
0.0240	20.2059	0.8660	0.0196	0.2312
0.0320	21.7436	0.9824	0.0244	0.2525
0.0400	23.8581	1.1005	0.0257	0.2757
0.0480	26.3943	1.2259	0.0251	0.3003
0.0560	29.1545	1.3783	0.0241	0.3227
0.0640	31.9928	1.5169	0.0209	0.3404
0.0720	34.7794	1.6328	0.0153	0.3520
0.0800	37.3891	1.7002	0.0073	0.3562
0.0880	39.7556	1.7224	-0.0056	0.3551
0.0960	41.8358	1.7270	-0.0215	0.3494
0.1040	43.5911	1.6928	-0.0347	0.3397
0.1120	45.0184	1.6368	-0.0436	0.3287
0.1200	46.1337	1.5717	-0.0487	0.3177
0.1280	46.9790	1.5107	-0.0515	0.3079
0.1360	47.5958	1.4778	-0.0520	0.2984
0.1440	47.9771	1.4311	-0.0506	0.2882
0.1520	48.0842	1.3713	-0.0484	0.2789
0.1600	47.8862	1.3495	-0.0459	0.2697
0.1680	47.3247	1.3230	-0.0445	0.2585
0.1760	46.2810	1.2511	-0.0427	0.2464
0.1840	44.6771	1.1823	-0.0385	0.2340
0.1920	42.5711	1.1314	-0.0328	0.2195
0.2000	40.1067	1.0560	-0.0250	0.2030
0.2080	37.4348	0.9607	-0.0167	0.1881
0.2160	34.6690	0.8734	-0.0094	0.1763
0.2240	31.9320	0.8089	-0.0019	0.1672
0.2320	29.3637	0.7683	0.0065	0.1615
0.2400	27.0308	0.7298	0.0154	0.1597
0.2480	24.9375	0.6967	0.0227	0.1627
0.2560	23.1078	0.7095	0.0268	0.1693
0.2640	21.5941	0.7571	0.0277	0.1753
0.2720	20.4314	0.7880	0.0266	0.1790
0.2800	19.5880	0.7911	0.0245	0.1820
0.2880	19.0066	0.7829	0.0217	0.1855
0.2960	18.6998	0.7870	0.0187	0.1905

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 16 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	C1
0.0000	18.4308	0.8098	0.0185	0.1806
0.0220	18.6083	0.8216	0.0174	0.1858
0.0440	19.1270	0.8664	0.0176	0.1976
0.0660	20.0208	0.9351	0.0214	0.2151
0.0880	21.7457	1.0359	0.0262	0.2362
0.1100	24.5624	1.1578	0.0275	0.2607
0.1320	27.8855	1.2939	0.0294	0.2840
0.1540	31.4667	1.4186	0.0281	0.3022
0.1760	35.3278	1.4945	0.0120	0.3106
0.1980	39.0158	1.4930	-0.0126	0.3079
0.2200	42.9062	1.4644	-0.0360	0.3022
0.2420	46.5249	1.4235	-0.0483	0.2967
0.2640	49.6492	1.4009	-0.0559	0.2955
0.2860	52.5407	1.3977	-0.0626	0.2981
0.3080	55.3863	1.4209	-0.0706	0.3026
0.3300	57.9049	1.4403	-0.0760	0.3050
0.3520	59.9477	1.4383	-0.0776	0.3065
0.3740	61.6307	1.4320	-0.0812	0.3055
0.3960	62.8325	1.4445	-0.0850	0.3052
0.4180	63.5072	1.4287	-0.0856	0.3020
0.4400	63.5741	1.4099	-0.0832	0.2964
0.4620	63.2214	1.3788	-0.0788	0.2898
0.4840	62.3966	1.3648	-0.0789	0.2839
0.5060	60.5930	1.3241	-0.0700	0.2758
0.5280	58.1992	1.2633	-0.0601	0.2644
0.5500	55.3864	1.2282	-0.0530	0.2530
0.5720	52.2583	1.1671	-0.0442	0.2399
0.5940	49.1121	1.1039	-0.0385	0.2260
0.6160	45.7460	1.0439	-0.0337	0.2119
0.6380	41.9139	0.9674	-0.0262	0.1968
0.6600	37.9112	0.8924	-0.0158	0.1824
0.6820	34.1297	0.8437	-0.0064	0.1755
0.7040	30.4850	0.8351	0.0128	0.1776
0.7260	27.2760	0.8726	0.0230	0.1861
0.7480	24.3469	0.8992	0.0273	0.1921
0.7700	21.8789	0.9003	0.0259	0.1917
0.7920	20.1446	0.8674	0.0223	0.1868
0.8140	19.0845	0.8292	0.0195	0.1820
0.8360	18.5308	0.8179	0.0188	0.1802

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 16 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	C1
0.0000	19.2928	0.7328	0.0192	0.1878
0.0080	19.6890	0.7531	0.0176	0.2037
0.0160	20.7841	0.8068	0.0184	0.2260
0.0240	22.7142	0.9406	0.0216	0.2544
0.0320	25.5071	1.1198	0.0224	0.2861
0.0400	28.9660	1.2878	0.0204	0.3183
0.0480	32.8225	1.4810	0.0146	0.3477
0.0560	36.8441	1.6760	0.0038	0.3692
0.0640	40.8122	1.8040	-0.0126	0.3808
0.0720	44.5272	1.8558	-0.0319	0.3835
0.0800	47.8941	1.8639	-0.0501	0.3791
0.0880	50.9237	1.8430	-0.0638	0.3698
0.0960	53.6359	1.7824	-0.0730	0.3595
0.1040	56.0023	1.7177	-0.0799	0.3508
0.1120	57.9825	1.6663	-0.0845	0.3433
0.1200	59.6004	1.6315	-0.0875	0.3366
0.1280	60.8986	1.6085	-0.0896	0.3306
0.1360	61.8554	1.5860	-0.0903	0.3249
0.1440	62.3889	1.5673	-0.0887	0.3188
0.1520	62.4008	1.5552	-0.0852	0.3111
0.1600	61.7779	1.5341	-0.0801	0.3009
0.1680	60.3907	1.4685	-0.0740	0.2888
0.1760	58.1944	1.3895	-0.0660	0.2754
0.1840	55.3373	1.3441	-0.0562	0.2594
0.1920	52.0534	1.2828	-0.0467	0.2397
0.2000	48.4952	1.1740	-0.0385	0.2198
0.2080	44.7284	1.0657	-0.0310	0.2017
0.2160	40.8410	0.9786	-0.0225	0.1838
0.2240	36.9980	0.8889	-0.0126	0.1666
0.2320	33.3569	0.7876	-0.0019	0.1528
0.2400	30.0263	0.6939	0.0080	0.1449
0.2480	27.1045	0.6427	0.0159	0.1435
0.2560	24.6635	0.6423	0.0226	0.1471
0.2640	22.7087	0.6596	0.0271	0.1532
0.2720	21.2028	0.6765	0.0279	0.1608
0.2800	20.1137	0.6970	0.0255	0.1690
0.2880	19.4652	0.7167	0.0218	0.1779
0.2960	19.3353	0.7358	0.0187	0.1895

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 24 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	27.4114	1.1755	0.0306	0.2458
0.0220	27.4747	1.1805	0.0306	0.2486
0.0440	27.7069	1.1994	0.0293	0.2520
0.0660	27.9475	1.2153	0.0297	0.2563
0.0880	28.2549	1.2477	0.0305	0.2620
0.1100	28.7469	1.2779	0.0316	0.2669
0.1320	29.5534	1.3094	0.0298	0.2716
0.1540	30.6255	1.3283	0.0284	0.2739
0.1760	31.9898	1.3395	0.0250	0.2751
0.1980	33.4148	1.3505	0.0202	0.2748
0.2200	34.8357	1.3442	0.0103	0.2733
0.2420	36.0341	1.3294	-0.0020	0.2689
0.2640	37.0282	1.2936	-0.0128	0.2625
0.2860	38.0608	1.2670	-0.0206	0.2575
0.3080	39.0647	1.2428	-0.0233	0.2523
0.3300	39.9670	1.2188	-0.0239	0.2490
0.3520	40.6646	1.2104	-0.0245	0.2458
0.3740	41.2242	1.1984	-0.0261	0.2436
0.3960	41.6468	1.1873	-0.0285	0.2413
0.4180	41.8604	1.1776	-0.0312	0.2380
0.4400	41.8656	1.1558	-0.0326	0.2337
0.4620	41.6622	1.1363	-0.0313	0.2303
0.4840	41.4555	1.1280	-0.0306	0.2273
0.5060	41.2529	1.1150	-0.0308	0.2240
0.5280	40.7306	1.0970	-0.0291	0.2201
0.5500	39.8155	1.0725	-0.0263	0.2163
0.5720	38.7037	1.0620	-0.0226	0.2136
0.5940	37.5548	1.0512	-0.0170	0.2122
0.6160	36.4035	1.0533	-0.0094	0.2139
0.6380	35.1905	1.0659	-0.0067	0.2152
0.6600	33.8675	1.0671	-0.0006	0.2167
0.6820	32.5323	1.0859	0.0106	0.2214
0.7040	31.2844	1.1145	0.0216	0.2276
0.7260	30.2150	1.1424	0.0272	0.2345
0.7480	29.3979	1.1663	0.0290	0.2395
0.7700	28.6588	1.1733	0.0303	0.2417
0.7920	28.0814	1.1702	0.0306	0.2419
0.8140	27.6733	1.1671	0.0304	0.2428
0.8360	27.4463	1.1691	0.0305	0.2442

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 24 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	C1
0.0000	27.6056	1.1009	0.0280	0.2378
0.0080	27.7002	1.1228	0.0266	0.2450
0.0160	27.9593	1.1550	0.0258	0.2530
0.0240	28.4050	1.1999	0.0268	0.2611
0.0320	29.0625	1.2439	0.0297	0.2690
0.0400	29.9588	1.2822	0.0311	0.2776
0.0480	31.0951	1.3395	0.0297	0.2866
0.0560	32.4189	1.4065	0.0261	0.2942
0.0640	33.8161	1.4537	0.0208	0.2997
0.0720	35.1501	1.4819	0.0147	0.3027
0.0800	36.3429	1.4945	0.0081	0.3027
0.0880	37.4068	1.4958	-0.0002	0.3003
0.0960	38.3608	1.4874	-0.0092	0.2961
0.1040	39.1909	1.4613	-0.0168	0.2908
0.1120	39.8832	1.4302	-0.0225	0.2851
0.1200	40.4421	1.4002	-0.0263	0.2788
0.1280	40.8921	1.3714	-0.0282	0.2725
0.1360	41.2494	1.3540	-0.0287	0.2663
0.1440	41.4804	1.3290	-0.0282	0.2593
0.1520	41.5291	1.2907	-0.0273	0.2520
0.1600	41.3648	1.2605	-0.0262	0.2445
0.1680	40.9784	1.2251	-0.0268	0.2364
0.1760	40.3489	1.1795	-0.0274	0.2285
0.1840	39.4618	1.1395	-0.0251	0.2205
0.1920	38.3591	1.0931	-0.0206	0.2119
0.2000	37.1318	1.0425	-0.0160	0.2044
0.2080	35.8474	1.0086	-0.0115	0.1990
0.2160	34.5275	0.9759	-0.0056	0.1949
0.2240	33.2185	0.9423	0.0015	0.1930
0.2320	31.9934	0.9350	0.0083	0.1938
0.2400	30.9059	0.9428	0.0139	0.1961
0.2480	29.9965	0.9527	0.0179	0.1999
0.2560	29.2733	0.9753	0.0208	0.2054
0.2640	28.7013	1.0014	0.0233	0.2114
0.2720	28.2481	1.0238	0.0255	0.2176
0.2800	27.9074	1.0526	0.0275	0.2240
0.2880	27.6862	1.0779	0.0285	0.2298
0.2960	27.6010	1.0948	0.0279	0.2357

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	27.5998	1.1536	0.0285	0.2397
0.0220	27.7428	1.1657	0.0274	0.2445
0.0440	28.0535	1.2011	0.0278	0.2528
0.0660	28.5477	1.2404	0.0297	0.2605
0.0880	29.5366	1.2839	0.0292	0.2687
0.1100	31.2288	1.3376	0.0272	0.2757
0.1320	33.5065	1.3661	0.0192	0.2806
0.1540	35.8413	1.3831	0.0023	0.2813
0.1760	38.0747	1.3674	-0.0169	0.2766
0.1980	40.5557	1.3377	-0.0285	0.2719
0.2200	43.1931	1.3196	-0.0361	0.2684
0.2420	45.6268	1.3013	-0.0426	0.2664
0.2640	47.7703	1.2861	-0.0496	0.2672
0.2860	49.6273	1.2993	-0.0545	0.2703
0.3080	51.2141	1.3175	-0.0572	0.2727
0.3300	52.6927	1.3166	-0.0596	0.2745
0.3520	54.0208	1.3210	-0.0623	0.2773
0.3740	55.0502	1.3434	-0.0639	0.2794
0.3960	55.7235	1.3575	-0.0643	0.2790
0.4180	56.2005	1.3441	-0.0643	0.2776
0.4400	56.3007	1.3405	-0.0638	0.2758
0.4620	56.2083	1.3333	-0.0621	0.2726
0.4840	55.9397	1.3170	-0.0604	0.2690
0.5060	55.4945	1.2954	-0.0591	0.2637
0.5280	54.4385	1.2740	-0.0555	0.2561
0.5500	52.8241	1.2247	-0.0492	0.2481
0.5720	51.0311	1.1949	-0.0451	0.2408
0.5940	49.2285	1.1674	-0.0416	0.2317
0.6160	47.1802	1.1217	-0.0370	0.2224
0.6380	44.8463	1.0748	-0.0327	0.2139
0.6600	42.2251	1.0397	-0.0280	0.2050
0.6820	39.5363	0.9951	-0.0224	0.1976
0.7040	37.1583	0.9682	-0.0162	0.1936
0.7260	34.9696	0.9578	-0.0067	0.1941
0.7480	32.8083	0.9777	0.0068	0.2005
0.7700	30.9424	1.0152	0.0178	0.2082
0.7920	29.6110	1.0589	0.0238	0.2188
0.8140	28.6304	1.1019	0.0266	0.2282
0.8360	27.9630	1.1240	0.0278	0.2342
0.8580	27.6284	1.1487	0.0286	0.2381

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	27.9896	0.9578	0.0231	0.2153
0.0080	28.0941	1.0004	0.0233	0.2288
0.0160	28.5633	1.0428	0.0233	0.2442
0.0240	29.4858	1.1230	0.0244	0.2609
0.0320	30.9505	1.2303	0.0253	0.2773
0.0400	32.9323	1.3210	0.0213	0.2936
0.0480	35.2597	1.4113	0.0133	0.3088
0.0560	37.7569	1.5009	0.0031	0.3197
0.0640	40.3193	1.5657	-0.0113	0.3264
0.0720	42.8313	1.6027	-0.0284	0.3290
0.0800	45.1788	1.6115	-0.0436	0.3276
0.0880	47.3115	1.6141	-0.0545	0.3231
0.0960	49.1895	1.5883	-0.0598	0.3165
0.1040	50.7895	1.5349	-0.0623	0.3106
0.1120	52.1305	1.5058	-0.0649	0.3061
0.1200	53.2467	1.4896	-0.0675	0.3017
0.1280	54.1571	1.4628	-0.0691	0.2974
0.1360	54.8614	1.4423	-0.0697	0.2936
0.1440	55.3488	1.4300	-0.0697	0.2897
0.1520	55.5948	1.4186	-0.0678	0.2851
0.1600	55.5677	1.4115	-0.0647	0.2793
0.1680	55.2046	1.3969	-0.0613	0.2720
0.1760	54.4140	1.3532	-0.0587	0.2639
0.1840	53.1413	1.3074	-0.0556	0.2553
0.1920	51.4401	1.2806	-0.0502	0.2442
0.2000	49.4295	1.2308	-0.0445	0.2309
0.2080	47.1797	1.1493	-0.0394	0.2182
0.2160	44.7315	1.0799	-0.0340	0.2068
0.2240	42.1804	1.0287	-0.0275	0.1953
0.2320	39.6683	0.9723	-0.0213	0.1841
0.2400	37.2913	0.9071	-0.0158	0.1755
0.2480	35.0927	0.8513	-0.0100	0.1706
0.2560	33.1384	0.8214	-0.0028	0.1686
0.2640	31.5196	0.8163	0.0048	0.1698
0.2720	30.2617	0.8199	0.0116	0.1746
0.2800	29.3106	0.8371	0.0170	0.1832
0.2880	28.6059	0.8723	0.0208	0.1940
0.2960	28.1495	0.9159	0.0226	0.2054

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	34.1863	1.1302	-0.0056	0.2326
0.0220	34.2971	1.1403	-0.0052	0.2359
0.0440	34.5247	1.1538	-0.0060	0.2388
0.0660	34.8038	1.1690	-0.0090	0.2424
0.0880	35.1729	1.1780	-0.0125	0.2427
0.1100	35.7845	1.1746	-0.0161	0.2438
0.1320	36.7220	1.1833	-0.0176	0.2455
0.1540	37.8683	1.1972	-0.0225	0.2464
0.1760	39.0850	1.1842	-0.0249	0.2458
0.1980	40.3728	1.1889	-0.0287	0.2454
0.2200	41.6477	1.1871	-0.0335	0.2459
0.2420	42.8326	1.1771	-0.0379	0.2467
0.2640	43.9350	1.1870	-0.0407	0.2478
0.2860	44.8948	1.1963	-0.0434	0.2501
0.3080	45.7861	1.2015	-0.0446	0.2504
0.3300	46.5466	1.2023	-0.0461	0.2513
0.3520	47.2017	1.2122	-0.0473	0.2528
0.3740	47.5848	1.2131	-0.0470	0.2517
0.3960	47.7716	1.2107	-0.0468	0.2514
0.4180	47.8615	1.2080	-0.0471	0.2517
0.4400	47.8656	1.2112	-0.0472	0.2519
0.4620	47.7645	1.2099	-0.0460	0.2496
0.4840	47.6274	1.1964	-0.0437	0.2473
0.5060	47.4887	1.1895	-0.0425	0.2439
0.5280	47.2029	1.1785	-0.0422	0.2409
0.5500	46.5795	1.1518	-0.0400	0.2364
0.5720	45.6214	1.1385	-0.0377	0.2320
0.5940	44.5389	1.1204	-0.0353	0.2273
0.6160	43.4738	1.0900	-0.0337	0.2227
0.6380	42.2761	1.0810	-0.0321	0.2195
0.6600	40.8605	1.0528	-0.0290	0.2161
0.6820	39.4731	1.0438	-0.0280	0.2136
0.7040	38.2343	1.0390	-0.0250	0.2129
0.7260	37.2066	1.0320	-0.0220	0.2129
0.7480	36.3560	1.0444	-0.0180	0.2141
0.7700	35.6268	1.0471	-0.0122	0.2156
0.7920	35.0271	1.0633	-0.0094	0.2190
0.8140	34.6179	1.0804	-0.0078	0.2230
0.8360	34.3489	1.1024	-0.0067	0.2268
0.8580	34.2051	1.1169	-0.0047	0.2309

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	C1
0.0000	34.5139	1.0152	-0.0109	0.2215
0.0080	34.6780	1.0455	-0.0119	0.2289
0.0160	35.0519	1.0790	-0.0126	0.2365
0.0240	35.6438	1.1134	-0.0134	0.2442
0.0320	36.4558	1.1546	-0.0156	0.2521
0.0400	37.4784	1.2035	-0.0195	0.2594
0.0480	38.6661	1.2474	-0.0245	0.2654
0.0560	39.9336	1.2773	-0.0297	0.2700
0.0640	41.1970	1.2985	-0.0342	0.2733
0.0720	42.4002	1.3162	-0.0382	0.2753
0.0800	43.4959	1.3253	-0.0413	0.2758
0.0880	44.4543	1.3256	-0.0432	0.2753
0.0960	45.2762	1.3242	-0.0450	0.2741
0.1040	45.9647	1.3191	-0.0467	0.2723
0.1120	46.5219	1.3109	-0.0478	0.2702
0.1200	46.9553	1.3071	-0.0485	0.2678
0.1280	47.2591	1.2981	-0.0484	0.2648
0.1360	47.4314	1.2877	-0.0472	0.2612
0.1440	47.4736	1.2824	-0.0455	0.2568
0.1520	47.3683	1.2636	-0.0437	0.2515
0.1600	47.0865	1.2321	-0.0429	0.2466
0.1680	46.6003	1.2097	-0.0436	0.2422
0.1760	45.8912	1.1935	-0.0431	0.2367
0.1840	44.9713	1.1660	-0.0398	0.2299
0.1920	43.8827	1.1260	-0.0361	0.2234
0.2000	42.6720	1.0895	-0.0331	0.2180
0.2080	41.3922	1.0643	-0.0299	0.2129
0.2160	40.1122	1.0356	-0.0263	0.2077
0.2240	38.9020	1.0002	-0.0234	0.2036
0.2320	37.8149	0.9771	-0.0214	0.2015
0.2400	36.8855	0.9700	-0.0196	0.2006
0.2480	36.1280	0.9659	-0.0177	0.2006
0.2560	35.5311	0.9621	-0.0155	0.2017
0.2640	35.0732	0.9654	-0.0129	0.2044
0.2720	34.7442	0.9764	-0.0109	0.2084
0.2800	34.5506	0.9894	-0.0103	0.2136
0.2880	34.5138	1.0078	-0.0109	0.2200

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 32 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	C1
0.0000	34.2140	1.0887	-0.0064	0.2263
0.0220	34.3289	1.1218	-0.0085	0.2329
0.0440	34.6324	1.1487	-0.0102	0.2390
0.0660	35.1850	1.1784	-0.0128	0.2454
0.0880	36.2230	1.1951	-0.0185	0.2500
0.1100	37.8487	1.2137	-0.0240	0.2533
0.1320	39.8560	1.2354	-0.0290	0.2568
0.1540	42.1232	1.2377	-0.0361	0.2592
0.1760	44.3442	1.2525	-0.0429	0.2620
0.1980	46.4547	1.2656	-0.0497	0.2654
0.2200	48.4280	1.2784	-0.0538	0.2698
0.2420	50.3861	1.3080	-0.0579	0.2756
0.2640	52.4550	1.3422	-0.0639	0.2826
0.2860	54.4939	1.3685	-0.0687	0.2884
0.3080	56.3881	1.3879	-0.0722	0.2912
0.3300	58.0580	1.3931	-0.0754	0.2921
0.3520	59.5598	1.3847	-0.0782	0.2936
0.3740	60.8293	1.3757	-0.0802	0.2932
0.3960	61.8660	1.3983	-0.0835	0.2924
0.4180	62.4797	1.3835	-0.0843	0.2897
0.4400	62.6559	1.3744	-0.0843	0.2880
0.4620	62.6013	1.3770	-0.0830	0.2871
0.4840	62.2591	1.3591	-0.0782	0.2824
0.5060	61.7910	1.3393	-0.0777	0.2784
0.5280	60.8125	1.3174	-0.0752	0.2739
0.5500	59.1747	1.2937	-0.0678	0.2673
0.5720	57.2796	1.2642	-0.0617	0.2600
0.5940	55.3008	1.2188	-0.0566	0.2520
0.6160	53.0926	1.2021	-0.0521	0.2455
0.6380	50.8367	1.1669	-0.0463	0.2365
0.6600	48.7310	1.1331	-0.0422	0.2284
0.6820	46.7199	1.0996	-0.0398	0.2217
0.7040	44.5930	1.0666	-0.0346	0.2143
0.7260	42.5126	1.0386	-0.0324	0.2074
0.7480	40.3327	0.9883	-0.0278	0.2022
0.7700	38.3555	0.9735	-0.0248	0.1986
0.7920	36.8149	0.9647	-0.0226	0.1996
0.8140	35.6597	0.9782	-0.0181	0.2031
0.8360	34.8834	1.0076	-0.0110	0.2089
0.8580	34.3946	1.0466	-0.0082	0.2165
0.8800	34.2104	1.0733	-0.0067	0.2238

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 32 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	34.7772	0.9040	-0.0101	0.1990
0.0080	34.8712	0.9296	-0.0095	0.2087
0.0160	35.3213	0.9627	-0.0107	0.2207
0.0240	36.2176	1.0354	-0.0134	0.2337
0.0320	37.6058	1.1181	-0.0186	0.2458
0.0400	39.4317	1.1740	-0.0273	0.2580
0.0480	41.5563	1.2387	-0.0377	0.2704
0.0560	43.8222	1.3114	-0.0471	0.2804
0.0640	46.0977	1.3561	-0.0536	0.2876
0.0720	48.3017	1.3815	-0.0576	0.2929
0.0800	50.4204	1.4074	-0.0620	0.2972
0.0880	52.4535	1.4345	-0.0670	0.3003
0.0960	54.3745	1.4519	-0.0715	0.3022
0.1040	56.1299	1.4585	-0.0756	0.3035
0.1120	57.6645	1.4569	-0.0787	0.3041
0.1200	58.9726	1.4625	-0.0814	0.3042
0.1280	60.0612	1.4639	-0.0836	0.3037
0.1360	60.9312	1.4567	-0.0853	0.3032
0.1440	61.5833	1.4706	-0.0866	0.3018
0.1520	61.9890	1.4694	-0.0865	0.2984
0.1600	62.0921	1.4461	-0.0848	0.2940
0.1680	61.8448	1.4402	-0.0818	0.2886
0.1760	61.1967	1.4203	-0.0792	0.2814
0.1840	60.0707	1.3663	-0.0756	0.2739
0.1920	58.4601	1.3251	-0.0697	0.2660
0.2000	56.4859	1.3039	-0.0629	0.2564
0.2080	54.3012	1.2632	-0.0547	0.2452
0.2160	52.0228	1.2034	-0.0471	0.2348
0.2240	49.7320	1.1520	-0.0424	0.2257
0.2320	47.4967	1.1194	-0.0391	0.2169
0.2400	45.3506	1.0797	-0.0356	0.2077
0.2480	43.2853	1.0166	-0.0314	0.1996
0.2560	41.3199	0.9656	-0.0264	0.1936
0.2640	39.5464	0.9456	-0.0215	0.1888
0.2720	38.0633	0.9243	-0.0182	0.1846
0.2800	36.8912	0.8952	-0.0159	0.1830
0.2880	35.9848	0.8819	-0.0135	0.1843
0.2960	35.3126	0.8797	-0.0117	0.1875
0.3040	34.8930	0.8874	-0.0111	0.1931

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	42.8037	1.0743	-0.0363	0.2285
0.0220	42.8207	1.0859	-0.0368	0.2310
0.0440	42.9348	1.0978	-0.0383	0.2349
0.0660	43.1063	1.1141	-0.0401	0.2392
0.0880	43.3906	1.1247	-0.0400	0.2418
0.1100	43.8952	1.1410	-0.0426	0.2445
0.1320	44.7056	1.1458	-0.0448	0.2481
0.1540	45.5910	1.1513	-0.0464	0.2521
0.1760	46.5957	1.1744	-0.0492	0.2559
0.1980	47.6451	1.1987	-0.0527	0.2591
0.2200	48.5482	1.2092	-0.0549	0.2636
0.2420	49.4176	1.2221	-0.0560	0.2655
0.2640	50.3274	1.2408	-0.0577	0.2674
0.2860	51.2671	1.2393	-0.0595	0.2716
0.3080	52.2316	1.2596	-0.0617	0.2728
0.3300	53.0257	1.2744	-0.0634	0.2734
0.3520	53.8170	1.2740	-0.0644	0.2735
0.3740	54.3340	1.2668	-0.0646	0.2734
0.3960	54.7491	1.2731	-0.0660	0.2735
0.4180	55.1648	1.2747	-0.0660	0.2731
0.4400	55.3433	1.2612	-0.0653	0.2716
0.4620	55.3350	1.2624	-0.0650	0.2707
0.4840	55.1912	1.2473	-0.0628	0.2693
0.5060	55.0318	1.2545	-0.0624	0.2682
0.5280	54.8865	1.2396	-0.0610	0.2651
0.5500	54.5142	1.2272	-0.0611	0.2629
0.5720	53.7888	1.2090	-0.0589	0.2589
0.5940	52.8138	1.1931	-0.0559	0.2549
0.6160	51.7609	1.1854	-0.0535	0.2502
0.6380	50.6694	1.1657	-0.0511	0.2464
0.6600	49.6874	1.1430	-0.0481	0.2424
0.6820	48.7772	1.1380	-0.0469	0.2394
0.7040	47.8670	1.1155	-0.0447	0.2348
0.7260	46.9546	1.0867	-0.0424	0.2307
0.7480	45.9864	1.0832	-0.0410	0.2276
0.7700	45.0280	1.0683	-0.0388	0.2252
0.7920	44.3184	1.0613	-0.0379	0.2240
0.8140	43.7651	1.0540	-0.0376	0.2229
0.8360	43.3201	1.0538	-0.0371	0.2231
0.8580	42.9998	1.0468	-0.0354	0.2235
0.8800	42.8320	1.0600	-0.0359	0.2260

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	43.1381	1.0418	-0.0377	0.2237
0.0080	43.2382	1.0559	-0.0388	0.2275
0.0160	43.5209	1.0692	-0.0394	0.2320
0.0240	43.9998	1.0890	-0.0403	0.2373
0.0320	44.6823	1.1157	-0.0424	0.2431
0.0400	45.5446	1.1487	-0.0456	0.2489
0.0480	46.5212	1.1755	-0.0490	0.2543
0.0560	47.5391	1.1972	-0.0521	0.2596
0.0640	48.5460	1.2243	-0.0543	0.2644
0.0720	49.5200	1.2451	-0.0564	0.2682
0.0800	50.4570	1.2633	-0.0585	0.2716
0.0880	51.3519	1.2842	-0.0609	0.2741
0.0960	52.1808	1.2946	-0.0632	0.2758
0.1040	52.9173	1.3019	-0.0649	0.2771
0.1120	53.5524	1.3159	-0.0664	0.2778
0.1200	54.0697	1.3162	-0.0668	0.2777
0.1280	54.4674	1.3076	-0.0667	0.2779
0.1360	54.7743	1.3231	-0.0670	0.2779
0.1440	54.9946	1.3370	-0.0664	0.2762
0.1520	55.0832	1.3212	-0.0640	0.2736
0.1600	55.0009	1.3040	-0.0618	0.2710
0.1680	54.7391	1.2972	-0.0619	0.2681
0.1760	54.2770	1.2879	-0.0618	0.2642
0.1840	53.5848	1.2644	-0.0592	0.2590
0.1920	52.6792	1.2295	-0.0553	0.2533
0.2000	51.6396	1.2076	-0.0509	0.2475
0.2080	50.5698	1.1889	-0.0472	0.2410
0.2160	49.5300	1.1545	-0.0449	0.2352
0.2240	48.5259	1.1247	-0.0430	0.2308
0.2320	47.5587	1.1062	-0.0416	0.2272
0.2400	46.6439	1.0905	-0.0402	0.2238
0.2480	45.8016	1.0757	-0.0376	0.2208
0.2560	45.0639	1.0547	-0.0351	0.2183
0.2640	44.4648	1.0402	-0.0347	0.2172
0.2720	44.0013	1.0446	-0.0354	0.2167
0.2800	43.6371	1.0407	-0.0352	0.2161
0.2880	43.3554	1.0227	-0.0348	0.2168
0.2960	43.1749	1.0215	-0.0356	0.2195
0.3040	43.1279	1.0365	-0.0372	0.2230

55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0269
 Alpha Min. = 48 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	49.1709	1.1295	-0.0460	0.2391
0.0220	49.2131	1.1317	-0.0465	0.2407
0.0440	49.3410	1.1415	-0.0477	0.2450
0.0660	49.4815	1.1675	-0.0491	0.2492
0.0880	49.7635	1.1792	-0.0503	0.2521
0.1100	50.3076	1.1940	-0.0517	0.2547
0.1320	51.0542	1.1948	-0.0535	0.2584
0.1540	52.0031	1.2180	-0.0559	0.2632
0.1760	53.0291	1.2440	-0.0583	0.2673
0.1980	54.1149	1.2546	-0.0607	0.2712
0.2200	55.2546	1.2851	-0.0642	0.2740
0.2420	56.3646	1.2864	-0.0668	0.2771
0.2640	57.4779	1.2858	-0.0686	0.2787
0.2860	58.4749	1.2984	-0.0709	0.2795
0.3080	59.4075	1.3021	-0.0731	0.2810
0.3300	60.3988	1.3165	-0.0763	0.2822
0.3520	61.1658	1.3214	-0.0764	0.2825
0.3740	61.8778	1.3238	-0.0767	0.2834
0.3960	62.5349	1.3297	-0.0781	0.2822
0.4180	62.8852	1.3209	-0.0791	0.2797
0.4400	63.0362	1.3102	-0.0787	0.2784
0.4620	63.0326	1.3032	-0.0789	0.2773
0.4840	62.8527	1.2955	-0.0779	0.2750
0.5060	62.5795	1.2835	-0.0764	0.2716
0.5280	62.3420	1.2737	-0.0761	0.2707
0.5500	61.9640	1.2616	-0.0743	0.2678
0.5720	61.1630	1.2418	-0.0705	0.2651
0.5940	60.1385	1.2262	-0.0661	0.2613
0.6160	59.0573	1.2080	-0.0629	0.2591
0.6380	57.9288	1.2108	-0.0606	0.2583
0.6600	56.7954	1.2039	-0.0576	0.2542
0.6820	55.7338	1.1765	-0.0557	0.2500
0.7040	54.6364	1.1579	-0.0537	0.2472
0.7260	53.5435	1.1509	-0.0517	0.2433
0.7480	52.5322	1.1311	-0.0497	0.2405
0.7700	51.6117	1.1308	-0.0481	0.2400
0.7920	50.8051	1.1346	-0.0476	0.2408
0.8140	50.2328	1.1363	-0.0469	0.2394
0.8360	49.8010	1.1219	-0.0458	0.2369
0.8580	49.4542	1.1112	-0.0458	0.2368
0.8800	49.2416	1.1239	-0.0463	0.2375
0.9020	49.1749	1.1260	-0.0459	0.2380

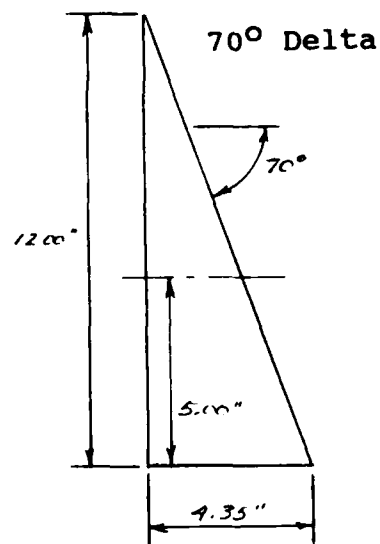
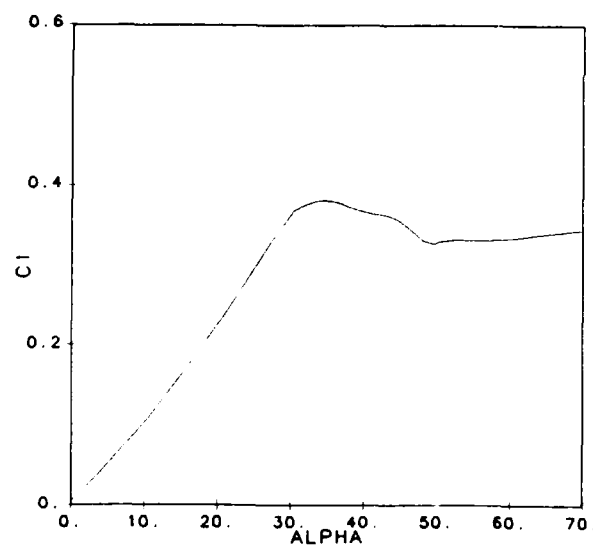
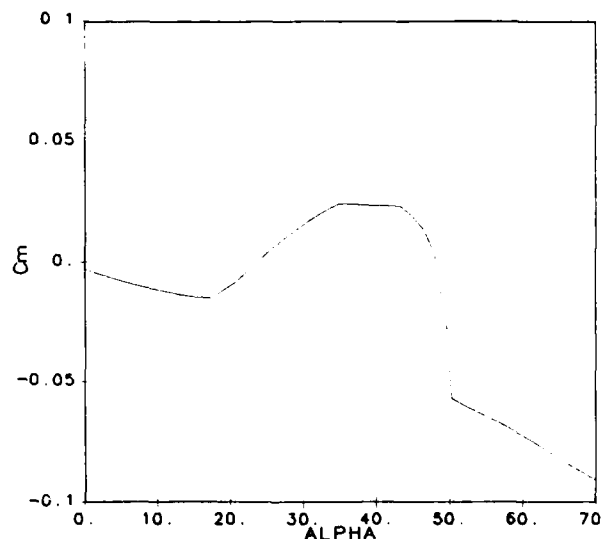
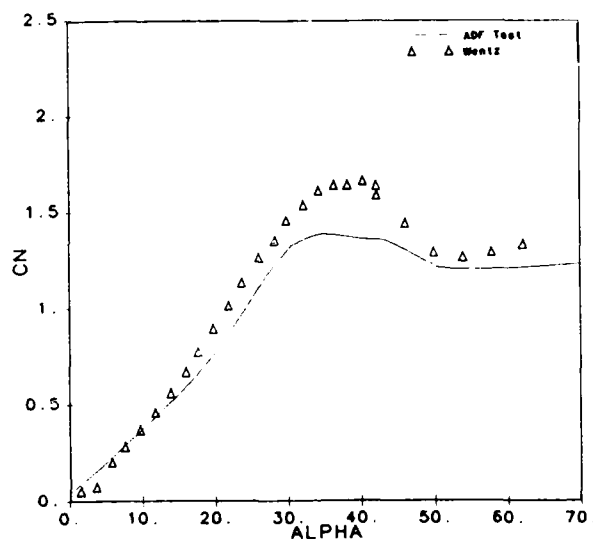
55 Deg. Delta
 ADF Wind Tunnel
 Velocity = 103.600 ft/s.

Red. Freq. = 0.0769
 Alpha Min. = 48 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	49.3143	1.1015	-0.0498	0.2398
0.0080	49.3782	1.1148	-0.0513	0.2429
0.0160	49.6213	1.1272	-0.0515	0.2463
0.0240	50.0598	1.1398	-0.0515	0.2506
0.0320	50.7060	1.1591	-0.0528	0.2559
0.0400	51.5596	1.1942	-0.0560	0.2614
0.0480	52.5719	1.2234	-0.0598	0.2665
0.0560	53.6733	1.2451	-0.0634	0.2715
0.0640	54.8105	1.2738	-0.0668	0.2758
0.0720	55.9449	1.2956	-0.0697	0.2791
0.0800	57.0404	1.3102	-0.0717	0.2818
0.0880	58.0667	1.3211	-0.0733	0.2839
0.0960	59.0022	1.3268	-0.0747	0.2857
0.1040	59.8493	1.3380	-0.0759	0.2870
0.1120	60.6123	1.3522	-0.0777	0.2876
0.1200	61.2542	1.3462	-0.0790	0.2877
0.1280	61.7633	1.3441	-0.0800	0.2877
0.1360	62.1673	1.3600	-0.0814	0.2867
0.1440	62.4484	1.3539	-0.0816	0.2851
0.1520	62.5556	1.3405	-0.0801	0.2836
0.1600	62.4750	1.3452	-0.0783	0.2812
0.1680	62.2113	1.3364	-0.0769	0.2778
0.1760	61.7424	1.3113	-0.0761	0.2752
0.1840	61.0403	1.3001	-0.0755	0.2728
0.1920	60.1206	1.2953	-0.0727	0.2687
0.2000	59.0498	1.2754	-0.0681	0.2636
0.2080	57.8929	1.2438	-0.0637	0.2590
0.2160	56.7031	1.2208	-0.0601	0.2551
0.2240	55.5408	1.2111	-0.0573	0.2511
0.2320	54.4400	1.1918	-0.0548	0.2466
0.2400	53.4057	1.1610	-0.0522	0.2426
0.2480	52.4569	1.1410	-0.0501	0.2397
0.2560	51.6295	1.1316	-0.0486	0.2374
0.2640	50.9454	1.1219	-0.0474	0.2360
0.2720	50.4045	1.1168	-0.0470	0.2355
0.2800	49.9872	1.1193	-0.0471	0.2353
0.2880	49.6663	1.1127	-0.0468	0.2352
0.2960	49.4343	1.0972	-0.0474	0.2364
0.3040	49.3107	1.0971	-0.0494	0.2392

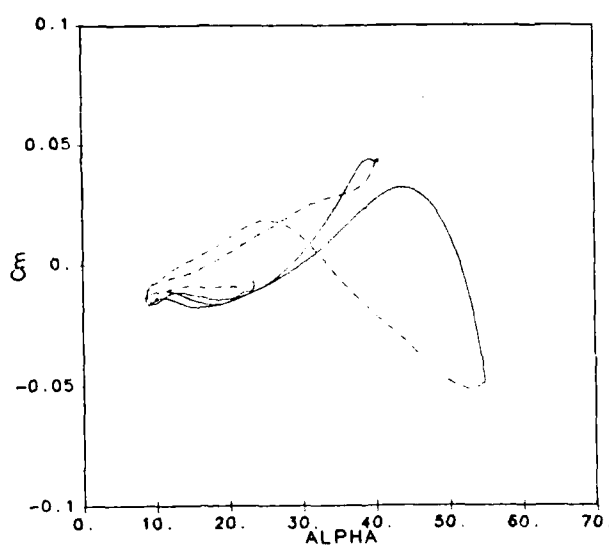
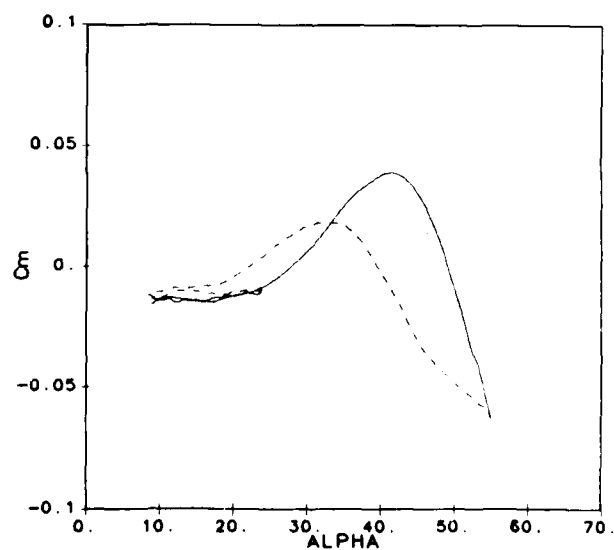
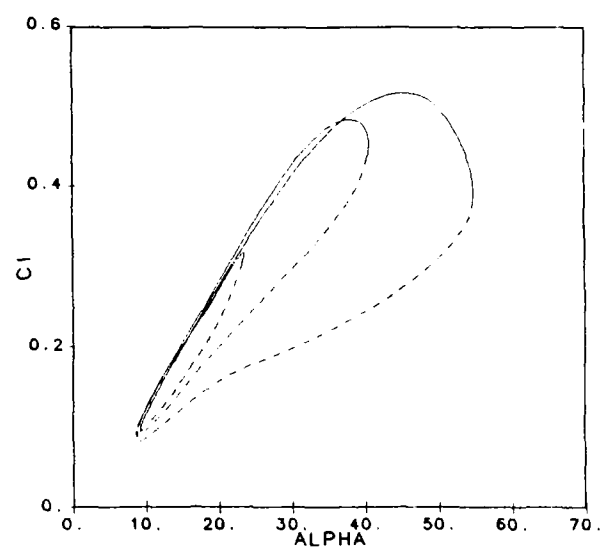
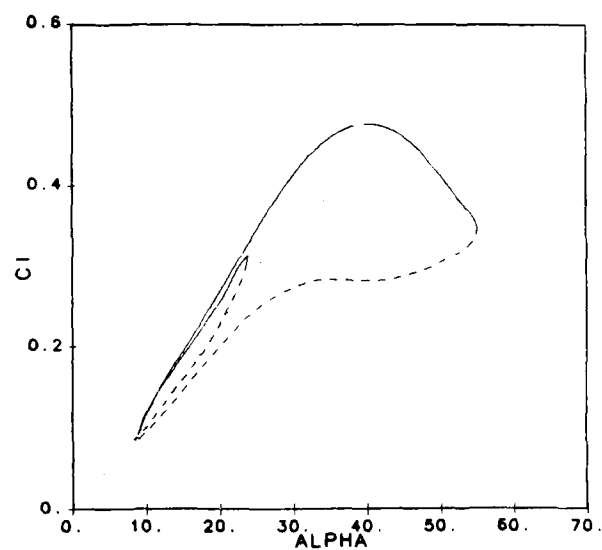
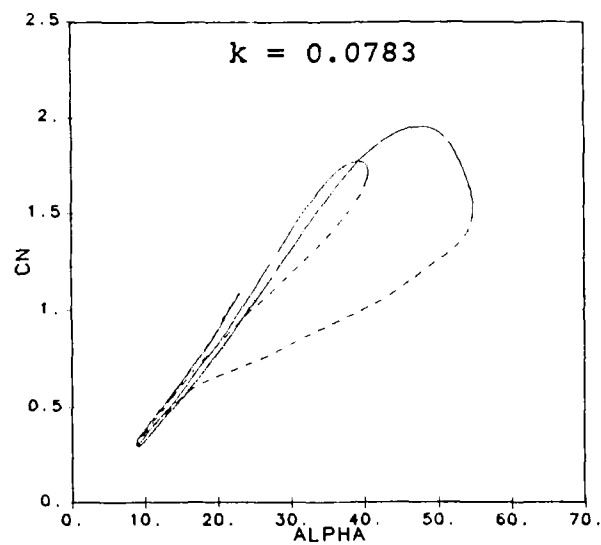
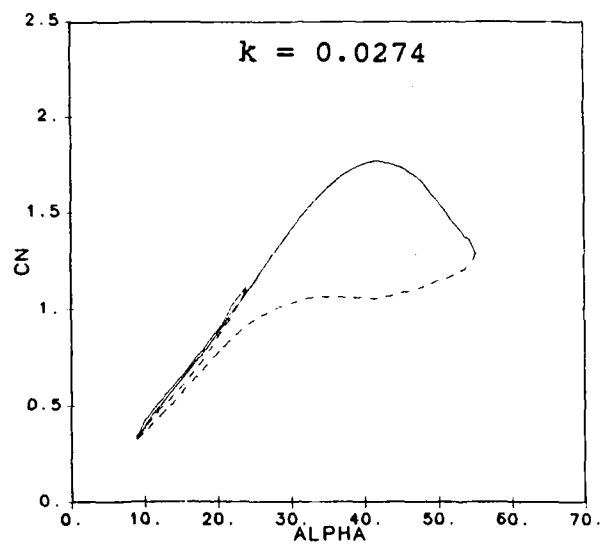
APPENDIX C

PLOTS AND LISTINGS OF THE ADF FORCE AND
MOMENT DATA FOR THE SEMI-SPAN 70° DELTA WING MODEL

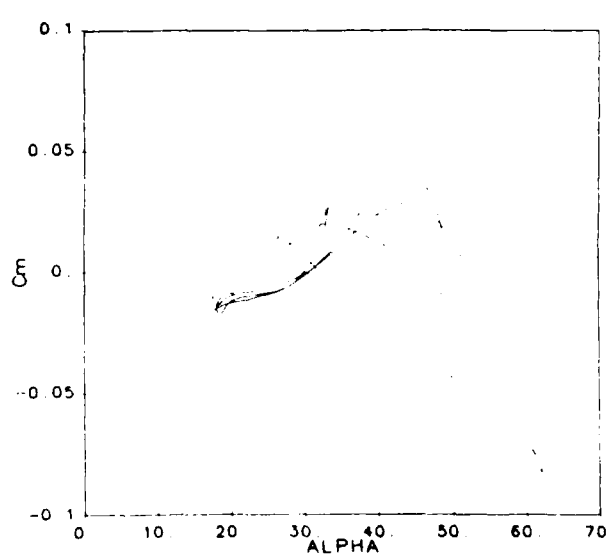
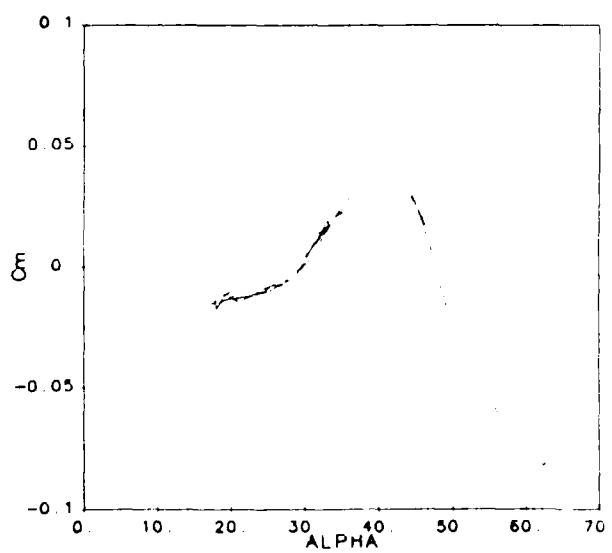
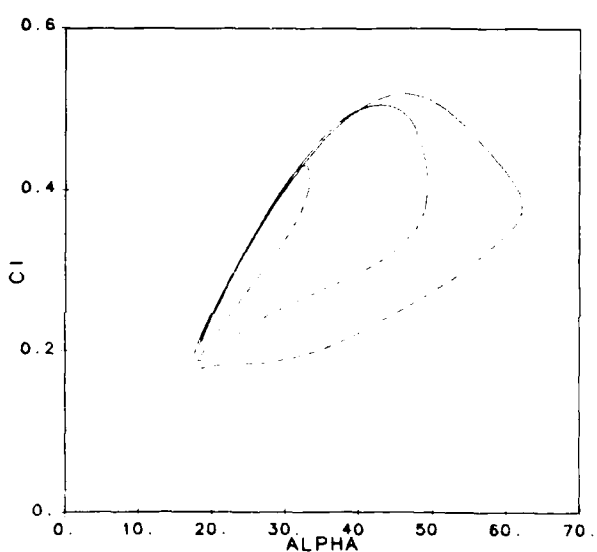
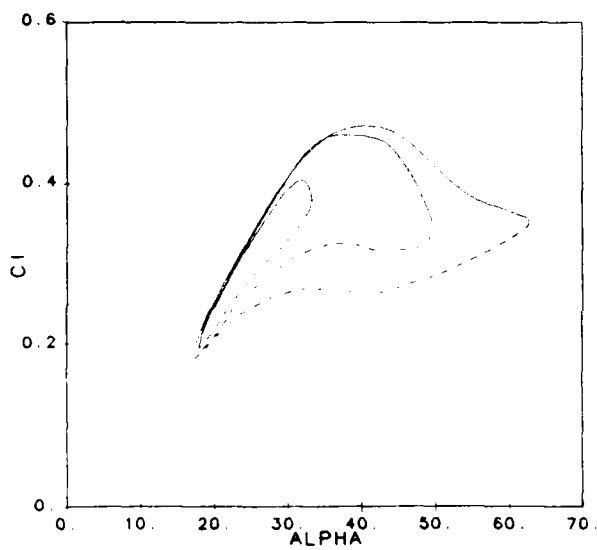
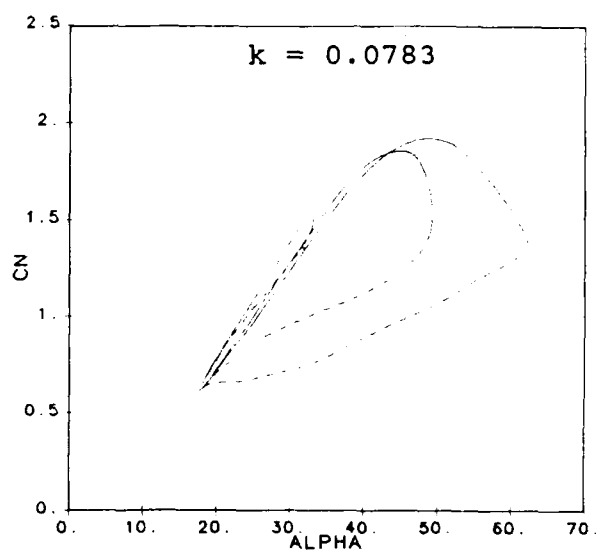
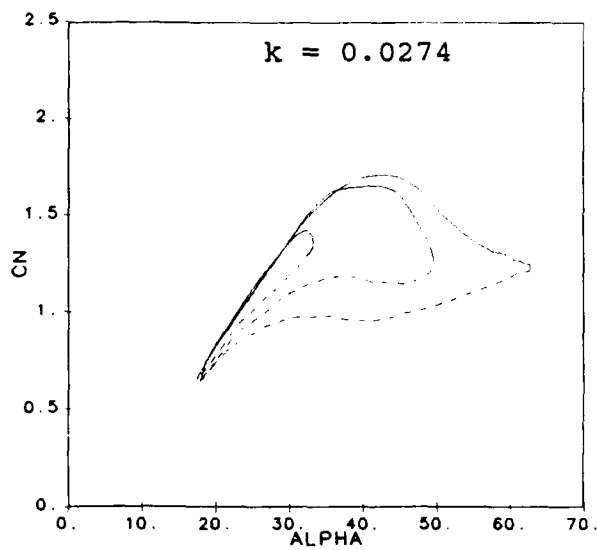


- o All Models Fabricated of 0.060" Aluminum Sheet
- o All Leading Edges Rounded, All Side and Trailing Edges Left Square

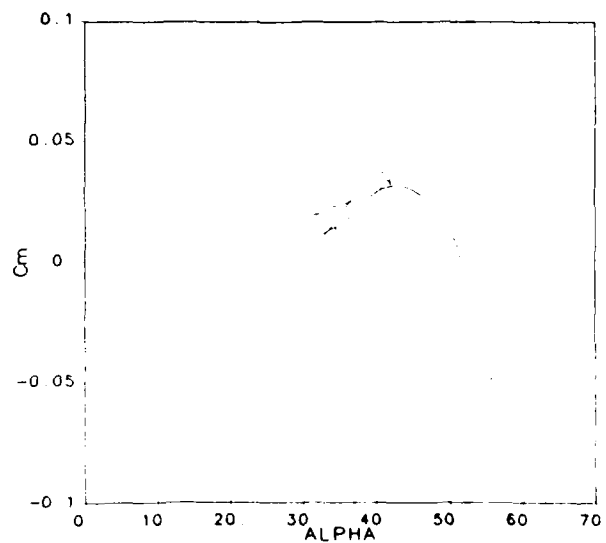
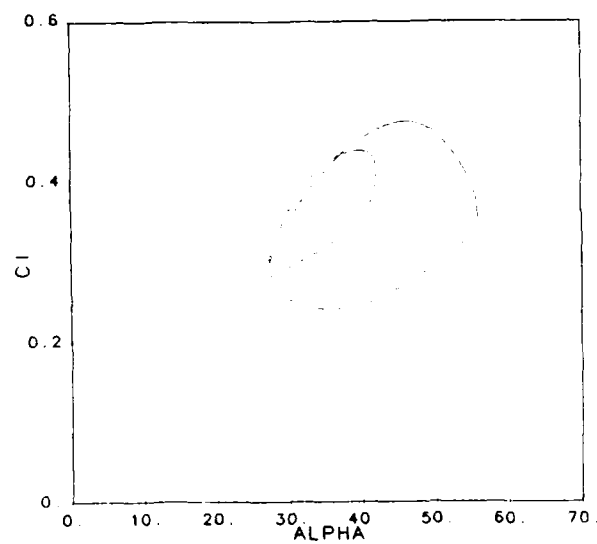
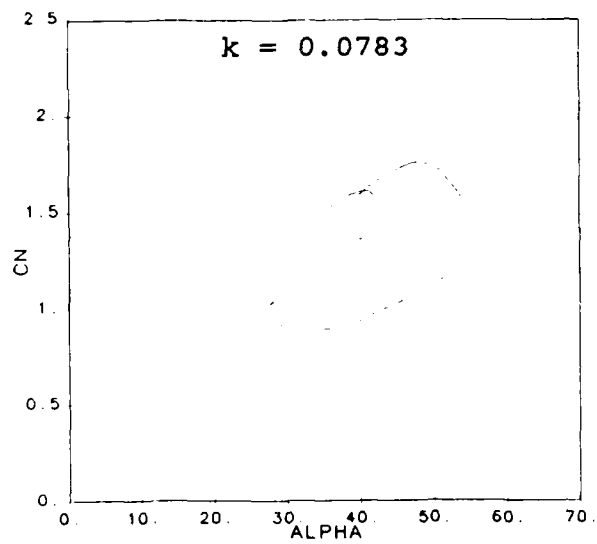
70° Delta, Steady



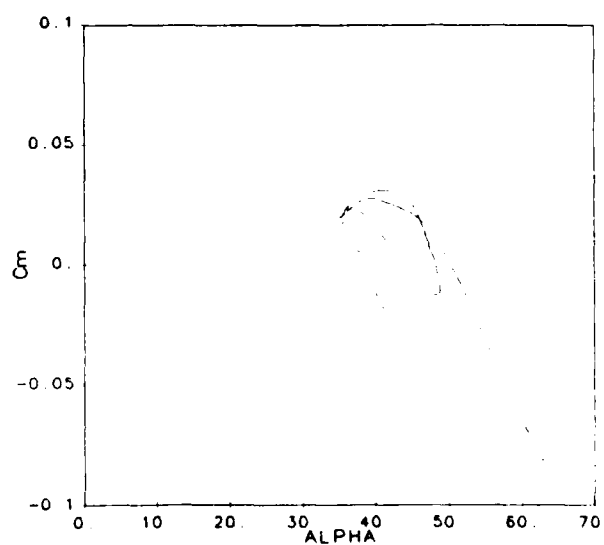
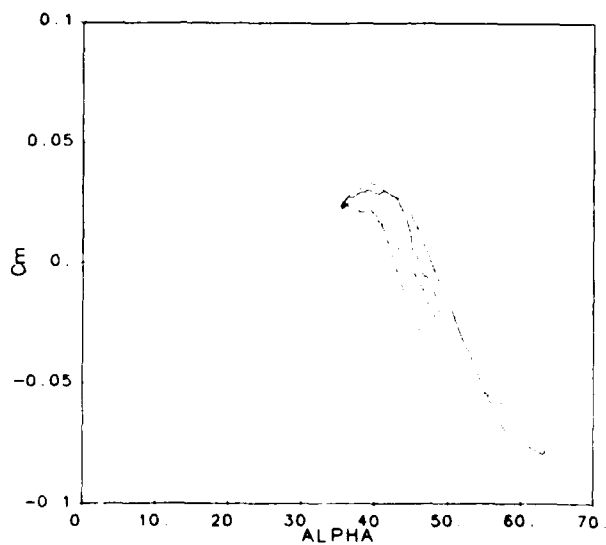
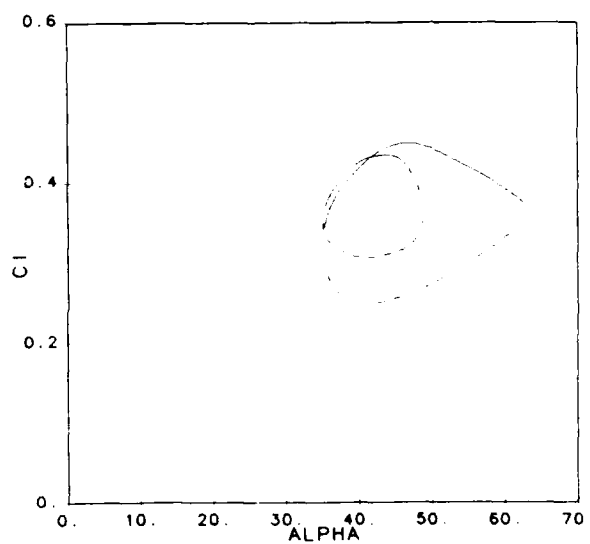
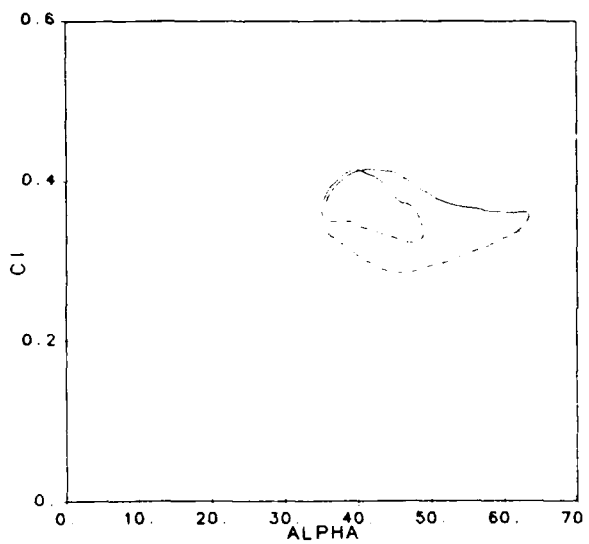
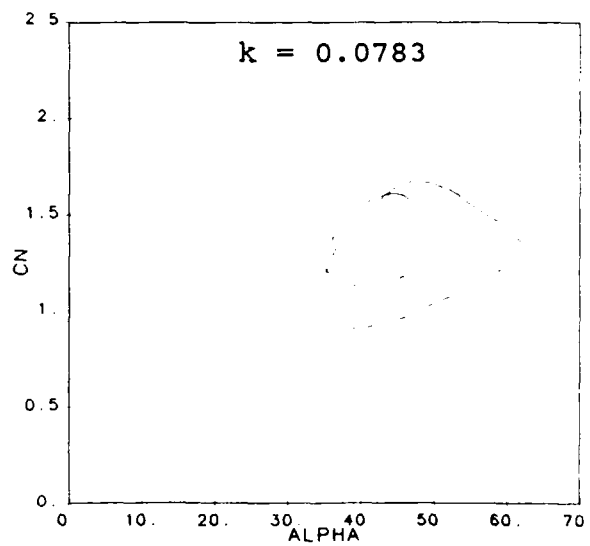
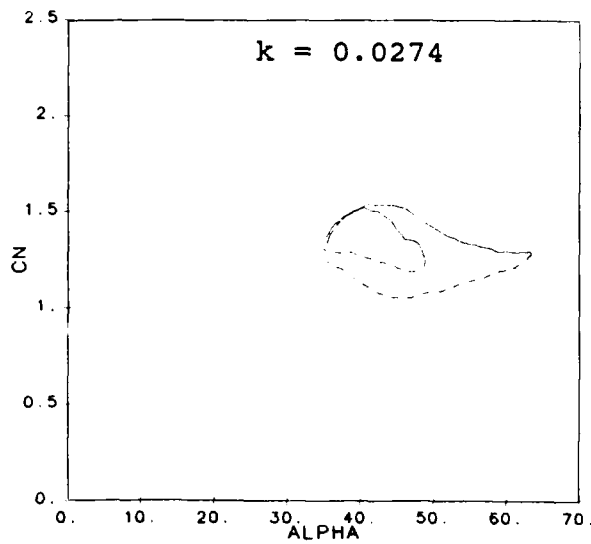
70° Delta, Incidence = 8° to 56°



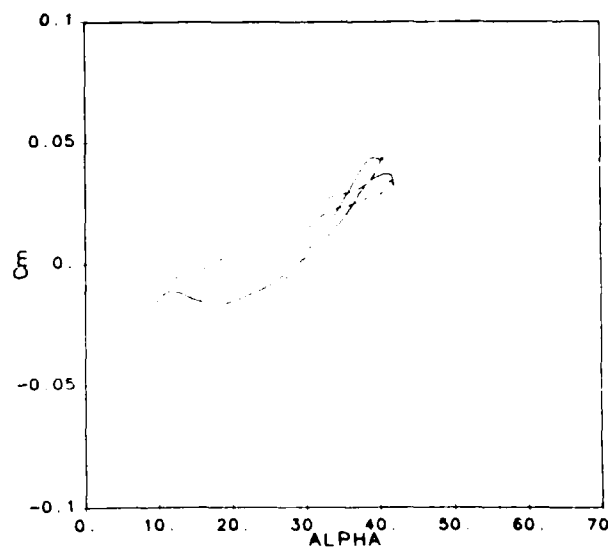
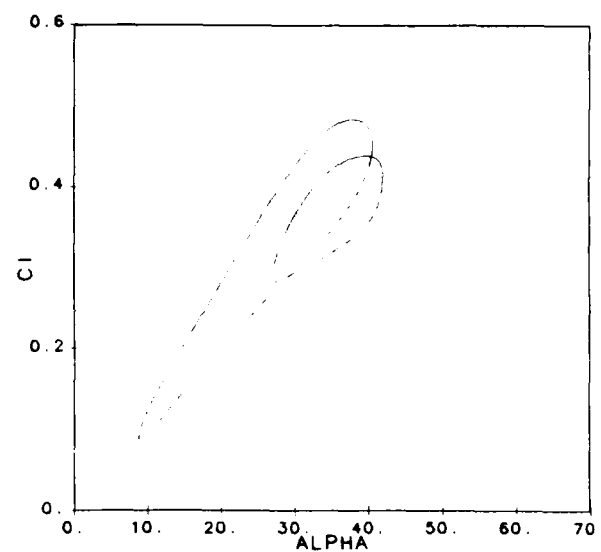
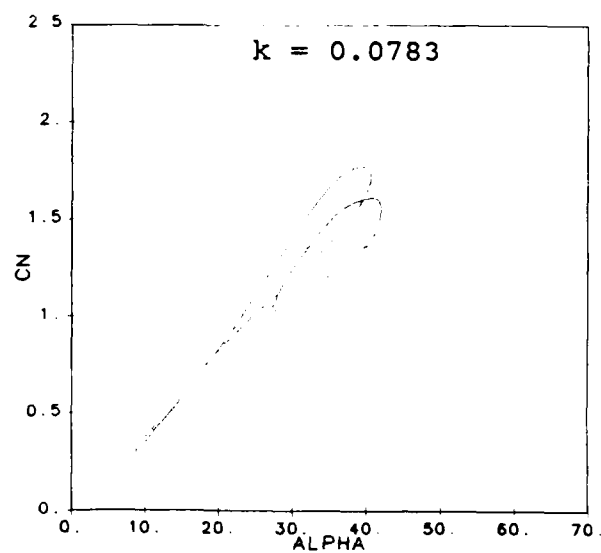
70° Delta, Incidence $\approx 16^\circ$ to 64°



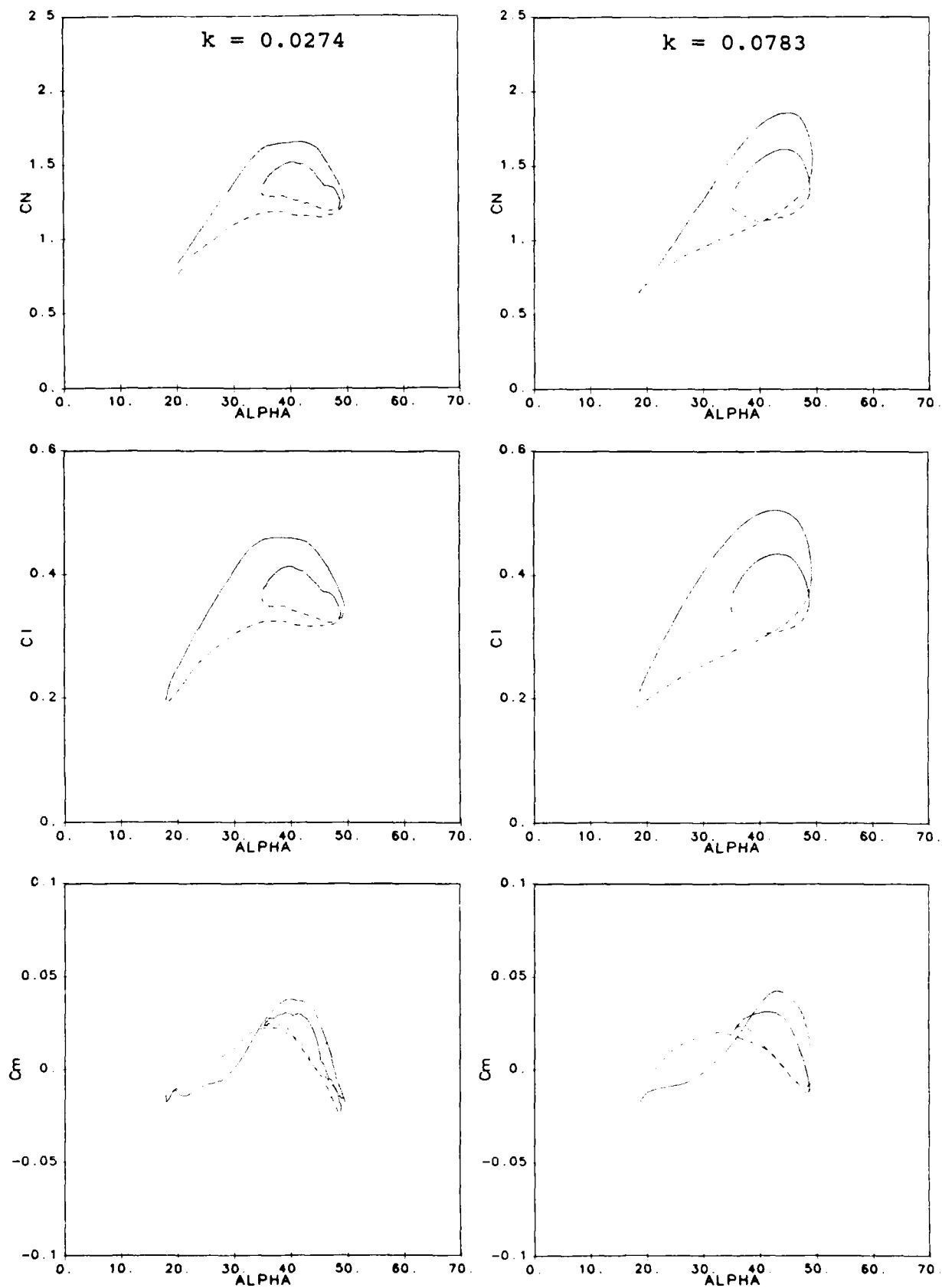
70° Delta, Incidence = 24° to 56°



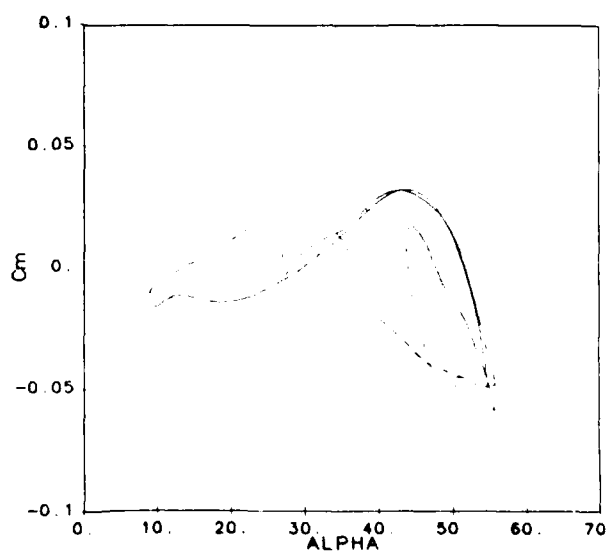
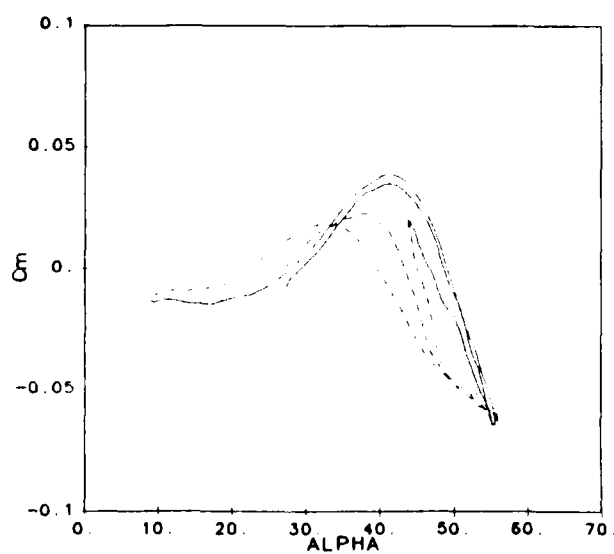
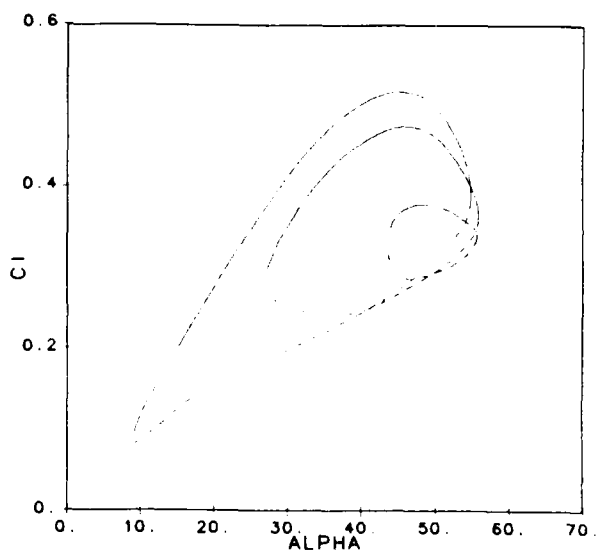
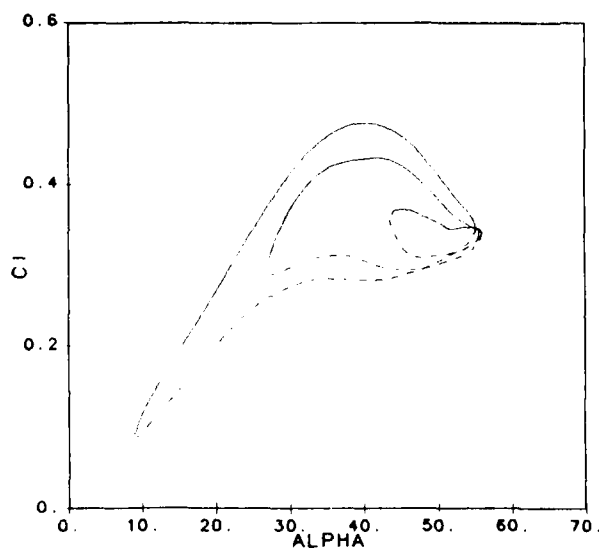
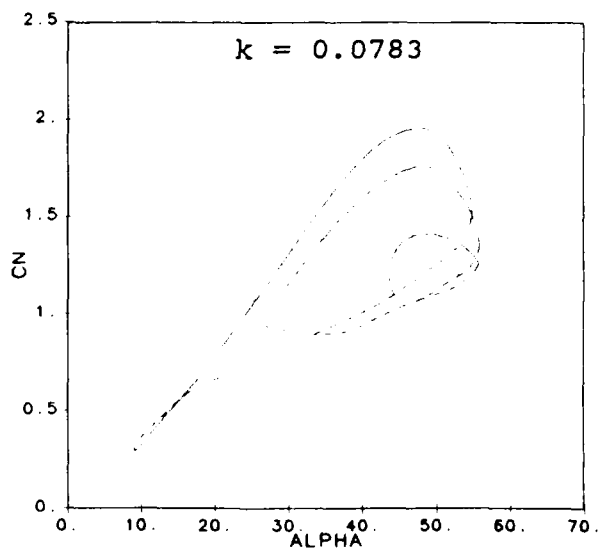
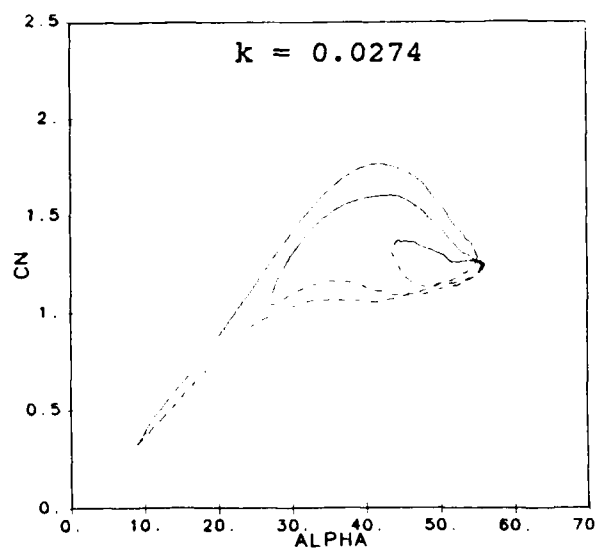
70° Delta, Incidence = 32° to 64°



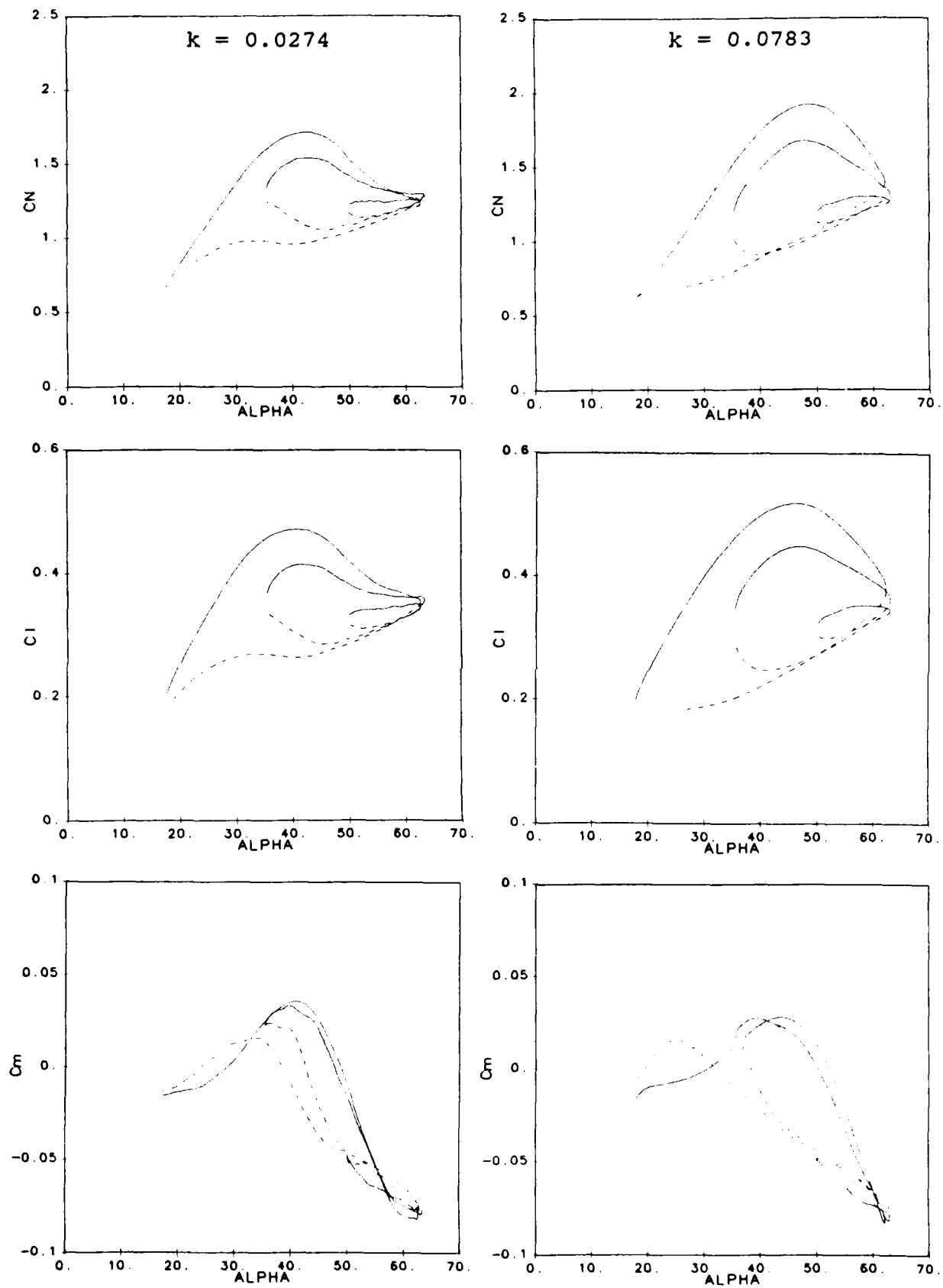
70° Delta, Incidence = 8° to 40°



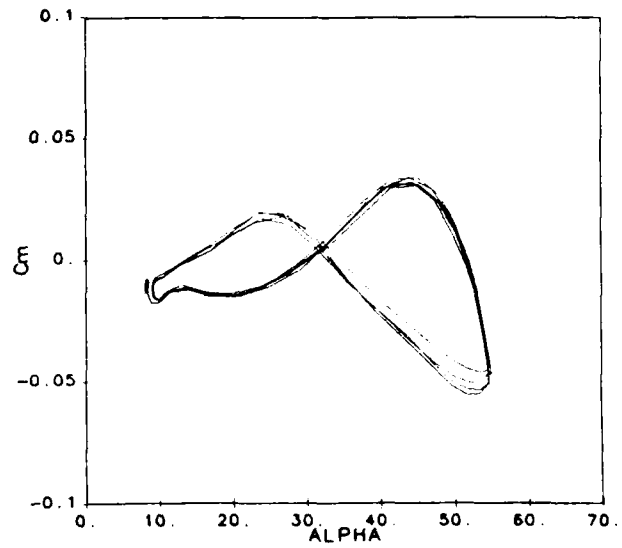
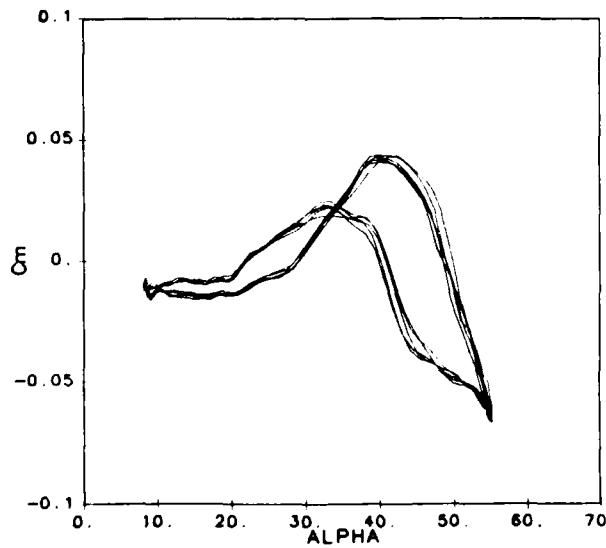
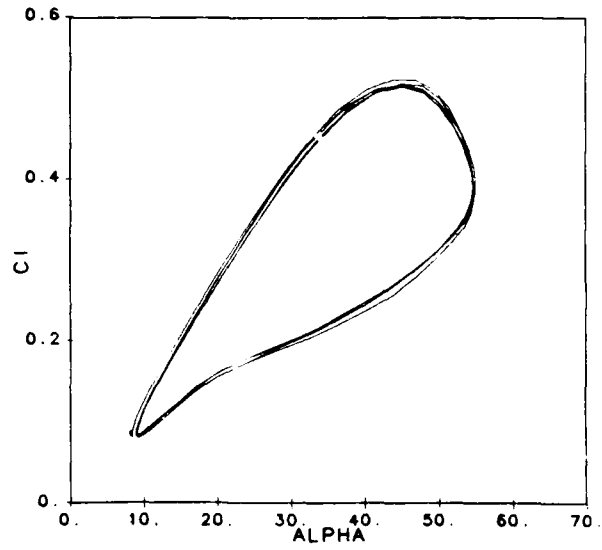
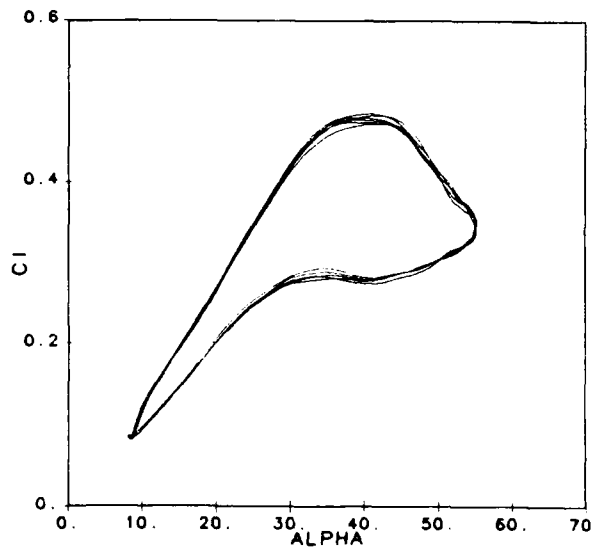
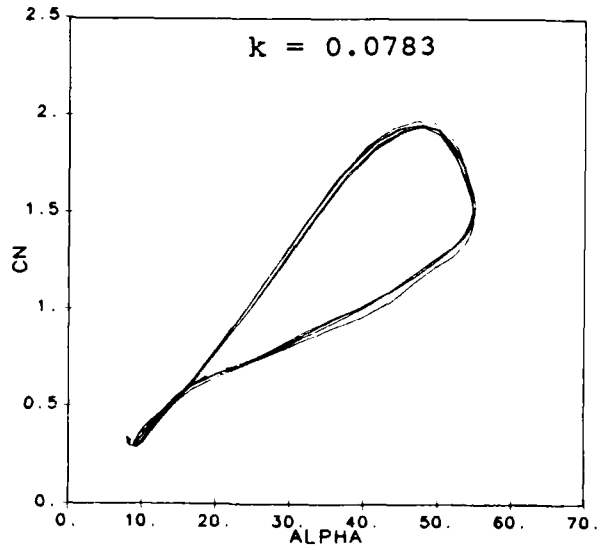
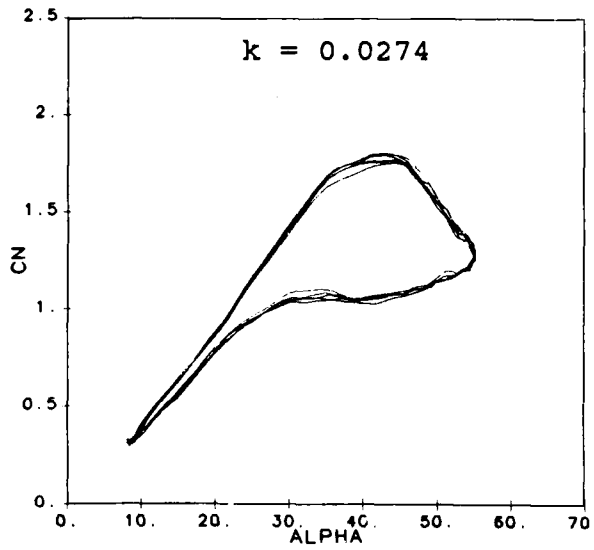
70° Delta, Incidence = 16° to 48°



70° Delta, Incidence = 8° to 56°



70° Delta, Incidence = 16° to 64°



70° Delta, Incidence = 8° to 56°

70 Deg. Delta Static Data
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0000
 Alpha Min. = 0 deg.
 Alpha Max. = 80 deg.

Time	Alpha	CN	Cm	Cl
0.0000	-0.6841	0.0230	-0.0018	-0.0012
0.0000	8.3250	0.3147	-0.0103	0.0844
0.0000	17.4562	0.6530	-0.0149	0.1927
0.0000	30.4461	1.3272	0.0166	0.3687
0.0000	34.7914	1.3874	0.0239	0.3816
0.0000	41.1538	1.3574	0.0233	0.3651
0.0000	43.2580	1.3549	0.0231	0.3627
0.0000	49.6270	1.2295	-0.0284	0.3271
0.0000	50.3338	1.2150	-0.0567	0.3307
0.0000	59.1437	1.2067	-0.0707	0.3330
0.0000	68.8012	1.2306	-0.0889	0.3437
0.0000	79.3247	1.2578	-0.1044	0.3532

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 8 deg.
 Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	C1
0.0000	8.9386	0.3324	-0.0155	0.0912
0.0220	9.1689	0.3448	-0.0154	0.0964
0.0440	9.4374	0.3691	-0.0147	0.1043
0.0660	9.8350	0.4008	-0.0141	0.1135
0.0880	10.3718	0.4350	-0.0137	0.1237
0.1100	11.0527	0.4698	-0.0135	0.1354
0.1320	11.9191	0.5140	-0.0143	0.1475
0.1540	12.9155	0.5589	-0.0145	0.1606
0.1760	13.9549	0.6031	-0.0137	0.1739
0.1980	15.0527	0.6515	-0.0140	0.1889
0.2200	16.1677	0.7023	-0.0148	0.2031
0.2420	17.2491	0.7570	-0.0131	0.2177
0.2640	18.3333	0.8098	-0.0128	0.2322
0.2860	19.3913	0.8622	-0.0120	0.2460
0.3080	20.3456	0.9095	-0.0122	0.2595
0.3300	21.1597	0.9534	-0.0116	0.2724
0.3520	21.7735	1.0004	-0.0104	0.2843
0.3740	22.3702	1.0403	-0.0111	0.2941
0.3960	22.9051	1.0676	-0.0114	0.3021
0.4180	23.3713	1.0870	-0.0117	0.3075
0.4400	23.6672	1.1033	-0.0106	0.3108
0.4620	23.8361	1.1109	-0.0100	0.3131
0.4840	23.8776	1.1185	-0.0089	0.3122
0.5060	23.8479	1.1084	-0.0087	0.3083
0.5280	23.7729	1.0950	-0.0088	0.3035
0.5500	23.6049	1.0768	-0.0093	0.2967
0.5720	23.2777	1.0527	-0.0101	0.2875
0.5940	22.7286	1.0122	-0.0094	0.2759
0.6160	22.0509	0.9670	-0.0096	0.2629
0.6380	21.2929	0.9261	-0.0101	0.2490
0.6600	20.4629	0.8842	-0.0103	0.2344
0.6820	19.5337	0.8290	-0.0111	0.2196
0.7040	18.5371	0.7678	-0.0113	0.2045
0.7260	17.4744	0.7113	-0.0111	0.1897
0.7480	16.4239	0.6591	-0.0114	0.1760
0.7700	15.3450	0.6090	-0.0104	0.1628
0.7920	14.2767	0.5689	-0.0098	0.1507
0.8140	13.2699	0.5284	-0.0101	0.1385
0.8360	12.3339	0.4897	-0.0102	0.1274
0.8580	11.4744	0.4542	-0.0110	0.1169
0.8800	10.7468	0.4171	-0.0124	0.1078
0.9020	10.1296	0.3867	-0.0129	0.1006
0.9240	9.6279	0.3667	-0.0134	0.0950
0.9460	9.1785	0.3500	-0.0129	0.0905
0.9680	8.8129	0.3376	-0.0118	0.0870
0.9900	8.6201	0.3259	-0.0119	0.0849
1.0120	8.5863	0.3208	-0.0123	0.0848
1.0340	8.6650	0.3253	-0.0128	0.0862

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 8 deg.
 Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.8771	0.3236	-0.0163	0.0999
0.0080	9.1746	0.3360	-0.0165	0.1067
0.0160	9.5695	0.3552	-0.0158	0.1153
0.0240	10.0821	0.3827	-0.0148	0.1257
0.0320	10.7338	0.4177	-0.0139	0.1377
0.0400	11.5352	0.4596	-0.0139	0.1510
0.0480	12.4769	0.5069	-0.0148	0.1656
0.0560	13.5297	0.5589	-0.0161	0.1811
0.0640	14.6513	0.6147	-0.0173	0.1967
0.0720	15.7967	0.6716	-0.0177	0.2122
0.0800	16.9300	0.7281	-0.0174	0.2274
0.0880	18.0220	0.7849	-0.0170	0.2425
0.0960	19.0411	0.8419	-0.0163	0.2572
0.1040	19.9589	0.8967	-0.0155	0.2710
0.1120	20.7589	0.9467	-0.0141	0.2831
0.1200	21.4454	0.9911	-0.0125	0.2933
0.1280	22.0313	1.0295	-0.0115	0.3018
0.1360	22.5212	1.0608	-0.0112	0.3084
0.1440	22.9080	1.0863	-0.0111	0.3134
0.1520	23.1846	1.1068	-0.0105	0.3164
0.1600	23.3572	1.1217	-0.0096	0.3175
0.1680	23.4406	1.1301	-0.0088	0.3169
0.1760	23.4444	1.1312	-0.0079	0.3144
0.1840	23.3702	1.1237	-0.0070	0.3099
0.1920	23.2135	1.1112	-0.0070	0.3037
0.2000	22.9517	1.0942	-0.0078	0.2958
0.2080	22.5580	1.0702	-0.0086	0.2857
0.2160	22.0200	1.0372	-0.0092	0.2734
0.2240	21.3373	0.9939	-0.0093	0.2590
0.2320	20.5220	0.9406	-0.0092	0.2432
0.2400	19.5946	0.8809	-0.0091	0.2265
0.2480	18.5800	0.8196	-0.0093	0.2099
0.2560	17.5043	0.7583	-0.0095	0.1938
0.2640	16.3958	0.6984	-0.0095	0.1783
0.2720	15.2869	0.6413	-0.0091	0.1633
0.2800	14.2126	0.5862	-0.0090	0.1492
0.2880	13.1994	0.5334	-0.0096	0.1365
0.2960	12.2616	0.4873	-0.0103	0.1254
0.3040	11.4126	0.4489	-0.0107	0.1157
0.3120	10.6708	0.4151	-0.0112	0.1075
0.3200	10.0456	0.3839	-0.0117	0.1008
0.3280	9.5359	0.3587	-0.0121	0.0958
0.3360	9.1350	0.3396	-0.0121	0.0923
0.3440	8.8417	0.3249	-0.0118	0.0901
0.3520	8.6658	0.3163	-0.0119	0.0895
0.3600	8.6112	0.3147	-0.0128	0.0907
0.3680	8.6687	0.3154	-0.0142	0.0934

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 8 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	9.1388	0.3047	-0.0163	0.1029
0.0080	9.5939	0.3249	-0.0160	0.1141
0.0160	10.2970	0.3617	-0.0135	0.1284
0.0240	11.3138	0.4107	-0.0115	0.1463
0.0320	12.6740	0.4696	-0.0116	0.1686
0.0400	14.3540	0.5472	-0.0137	0.1951
0.0480	16.2876	0.6441	-0.0159	0.2247
0.0560	18.3937	0.7492	-0.0165	0.2564
0.0640	20.6029	0.8605	-0.0148	0.2900
0.0720	22.8702	0.9862	-0.0119	0.3249
0.0800	25.1591	1.1211	-0.0084	0.3594
0.0880	27.4290	1.2544	-0.0032	0.3920
0.0960	29.6430	1.3852	0.0036	0.4213
0.1040	31.7550	1.5072	0.0112	0.4459
0.1120	33.7032	1.6101	0.0195	0.4642
0.1200	35.4310	1.6869	0.0281	0.4759
0.1280	36.9011	1.7355	0.0358	0.4817
0.1360	38.0976	1.7597	0.0412	0.4829
0.1440	39.0262	1.7695	0.0435	0.4811
0.1520	39.7062	1.7687	0.0434	0.4770
0.1600	40.1657	1.7607	0.0427	0.4712
0.1680	40.4379	1.7471	0.0425	0.4642
0.1760	40.5509	1.7276	0.0430	0.4561
0.1840	40.5208	1.7041	0.0438	0.4464
0.1920	40.3425	1.6764	0.0434	0.4350
0.2000	39.9702	1.6384	0.0409	0.4217
0.2080	39.3291	1.5904	0.0371	0.4065
0.2160	38.3585	1.5331	0.0332	0.3895
0.2240	37.0434	1.4674	0.0306	0.3711
0.2320	35.4151	1.3973	0.0289	0.3519
0.2400	33.5236	1.3215	0.0275	0.3318
0.2480	31.4305	1.2405	0.0253	0.3110
0.2560	29.2048	1.1604	0.0216	0.2900
0.2640	26.9126	1.0815	0.0173	0.2685
0.2720	24.6124	1.0012	0.0131	0.2465
0.2800	22.3568	0.9183	0.0092	0.2243
0.2880	20.1874	0.8324	0.0052	0.2024
0.2960	18.1380	0.7483	0.0013	0.1811
0.3040	16.2430	0.6688	-0.0018	0.1608
0.3120	14.5378	0.5922	-0.0040	0.1420
0.3200	13.0493	0.5180	-0.0053	0.1257
0.3280	11.7894	0.4543	-0.0060	0.1125
0.3360	10.7623	0.4044	-0.0069	0.1025
0.3440	9.9675	0.3671	-0.0080	0.0951
0.3520	9.3985	0.3405	-0.0089	0.0902
0.3600	9.0409	0.3232	-0.0098	0.0879
0.3680	8.8721	0.3105	-0.0111	0.0884
0.3760	8.8719	0.3018	-0.0130	0.0920

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 8 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	9.0515	0.3232	-0.0131	0.0913
0.0220	9.4226	0.3425	-0.0137	0.1011
0.0440	10.0760	0.3882	-0.0132	0.1158
0.0660	11.1243	0.4511	-0.0128	0.1357
0.0880	12.6962	0.5274	-0.0133	0.1610
0.1100	14.8103	0.6237	-0.0144	0.1907
0.1320	17.2768	0.7390	-0.0145	0.2261
0.1540	19.9685	0.8739	-0.0122	0.2668
0.1760	22.9087	1.0322	-0.0102	0.3123
0.1980	26.0232	1.2011	-0.0047	0.3594
0.2200	29.3428	1.3769	0.0043	0.4045
0.2420	32.7226	1.5387	0.0160	0.4415
0.2640	35.9762	1.6615	0.0286	0.4644
0.2860	39.0809	1.7371	0.0360	0.4751
0.3080	41.9952	1.7655	0.0384	0.4735
0.3300	44.6835	1.7382	0.0313	0.4622
0.3520	47.0788	1.6859	0.0175	0.4443
0.3740	49.0860	1.5996	0.0004	0.4230
0.3960	50.7376	1.5236	-0.0161	0.4042
0.4180	52.0786	1.4489	-0.0304	0.3878
0.4400	53.1629	1.4031	-0.0397	0.3758
0.4620	53.9883	1.3664	-0.0495	0.3679
0.4840	54.5846	1.3333	-0.0572	0.3598
0.5060	54.9088	1.3060	-0.0614	0.3537
0.5280	55.0744	1.2892	-0.0626	0.3485
0.5500	55.0541	1.2788	-0.0622	0.3433
0.5720	54.8556	1.2572	-0.0613	0.3373
0.5940	54.3416	1.2337	-0.0586	0.3298
0.6160	53.4342	1.2039	-0.0567	0.3220
0.6380	52.1344	1.1756	-0.0530	0.3144
0.6600	50.4840	1.1543	-0.0490	0.3067
0.6820	48.5090	1.1233	-0.0431	0.2975
0.7040	46.1414	1.0950	-0.0352	0.2904
0.7260	43.4751	1.0686	-0.0207	0.2838
0.7480	40.6265	1.0569	-0.0049	0.2821
0.7700	37.6516	1.0612	0.0092	0.2828
0.7920	34.5674	1.0629	0.0177	0.2836
0.8140	31.3856	1.0477	0.0180	0.2782
0.8360	28.1753	1.0048	0.0135	0.2653
0.8580	25.0656	0.9435	0.0070	0.2466
0.8800	22.1628	0.8554	-0.0001	0.2220
0.9020	19.4788	0.7514	-0.0055	0.1947
0.9240	17.0247	0.6483	-0.0079	0.1679
0.9460	14.8510	0.5577	-0.0087	0.1437
0.9680	12.9909	0.4798	-0.0089	0.1239
0.9900	11.4800	0.4225	-0.0093	0.1084
1.0120	10.3295	0.3741	-0.0103	0.0970
1.0340	9.5332	0.3434	-0.0106	0.0897
1.0560	9.0668	0.3270	-0.0107	0.0858
1.0780	8.9266	0.3180	-0.0118	0.0860

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 8 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	C1
0.0000	9.2128	0.2978	-0.0148	0.0963
0.0080	9.7076	0.3119	-0.0163	0.1090
0.0160	10.5550	0.3477	-0.0151	0.1265
0.0240	11.8535	0.4091	-0.0124	0.1494
0.0320	13.6618	0.4880	-0.0117	0.1784
0.0400	15.9537	0.5860	-0.0132	0.2141
0.0480	18.6483	0.7144	-0.0145	0.2555
0.0560	21.6618	0.8585	-0.0131	0.3000
0.0640	24.9253	1.0373	-0.0089	0.3462
0.0720	28.3602	1.2210	-0.0030	0.3922
0.0800	31.8609	1.4130	0.0047	0.4345
0.0880	35.3181	1.5957	0.0140	0.4693
0.0960	38.6364	1.7481	0.0236	0.4945
0.1040	41.7348	1.8577	0.0304	0.5099
0.1120	44.5354	1.9234	0.0316	0.5167
0.1200	46.9669	1.9505	0.0274	0.5153
0.1280	49.0008	1.9453	0.0189	0.5061
0.1360	50.6542	1.9061	0.0079	0.4909
0.1440	51.9719	1.8413	-0.0040	0.4730
0.1520	53.0028	1.7686	-0.0161	0.4554
0.1600	53.7770	1.6993	-0.0274	0.4393
0.1680	54.3134	1.6397	-0.0369	0.4244
0.1760	54.6382	1.5870	-0.0438	0.4101
0.1840	54.7791	1.5391	-0.0477	0.3961
0.1920	54.7413	1.4950	-0.0489	0.3823
0.2000	54.4835	1.4495	-0.0492	0.3685
0.2080	53.9198	1.3988	-0.0503	0.3549
0.2160	52.9589	1.3475	-0.0512	0.3408
0.2240	51.5623	1.2991	-0.0505	0.3255
0.2320	49.7428	1.2489	-0.0476	0.3086
0.2400	47.5175	1.1877	-0.0419	0.2906
0.2480	44.9027	1.1157	-0.0343	0.2726
0.2560	41.9550	1.0453	-0.0262	0.2553
0.2640	38.7844	0.9842	-0.0175	0.2387
0.2720	35.5167	0.9286	-0.0072	0.2228
0.2800	32.2427	0.8695	0.0045	0.2080
0.2880	29.0073	0.8070	0.0139	0.1950
0.2960	25.8357	0.7487	0.0181	0.1833
0.3040	22.7823	0.7015	0.0161	0.1711
0.3120	19.9344	0.6607	0.0107	0.1572
0.3200	17.3733	0.6146	0.0057	0.1413
0.3280	15.1469	0.5547	0.0022	0.1251
0.3360	13.2731	0.4875	-0.0008	0.1106
0.3440	11.7598	0.4285	-0.0036	0.0990
0.3520	10.6133	0.3864	-0.0063	0.0906
0.3600	9.8153	0.3540	-0.0076	0.0849
0.3680	9.3260	0.3261	-0.0086	0.0824
0.3760	9.1003	0.3070	-0.0102	0.0836
0.3840	9.1106	0.2991	-0.0124	0.0885

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	Cl
0.0000	18.4209	0.7180	-0.0146	0.2117
0.0220	18.7526	0.7470	-0.0145	0.2200
0.0440	19.1945	0.7748	-0.0138	0.2305
0.0660	19.7804	0.8159	-0.0131	0.2420
0.0880	20.5256	0.8600	-0.0132	0.2550
0.1100	21.3758	0.9080	-0.0128	0.2696
0.1320	22.2952	0.9630	-0.0126	0.2854
0.1540	23.2628	1.0196	-0.0116	0.3015
0.1760	24.2929	1.0775	-0.0107	0.3172
0.1980	25.3564	1.1384	-0.0096	0.3329
0.2200	26.4279	1.1924	-0.0080	0.3478
0.2420	27.4809	1.2452	-0.0055	0.3618
0.2640	28.4880	1.2917	-0.0022	0.3746
0.2860	29.4571	1.3381	-0.0002	0.3866
0.3080	30.2916	1.3742	0.0037	0.3952
0.3300	31.0418	1.3992	0.0085	0.4008
0.3520	31.7236	1.4146	0.0115	0.4038
0.3740	32.2860	1.4218	0.0148	0.4026
0.3960	32.6876	1.4167	0.0173	0.3986
0.4180	32.9741	1.4044	0.0186	0.3938
0.4400	33.1430	1.3915	0.0190	0.3891
0.4620	33.2223	1.3746	0.0190	0.3834
0.4840	33.2187	1.3567	0.0180	0.3773
0.5060	33.1364	1.3359	0.0169	0.3725
0.5280	32.9537	1.3220	0.0167	0.3679
0.5500	32.6504	1.3038	0.0156	0.3635
0.5720	32.2515	1.2857	0.0140	0.3576
0.5940	31.6939	1.2610	0.0132	0.3498
0.6160	31.0067	1.2261	0.0116	0.3404
0.6380	30.1309	1.1943	0.0091	0.3309
0.6600	29.1629	1.1556	0.0069	0.3212
0.6820	28.1528	1.1178	0.0026	0.3121
0.7040	27.0547	1.0851	-0.0005	0.3028
0.7260	25.9411	1.0427	-0.0035	0.2923
0.7480	24.8491	1.0016	-0.0065	0.2815
0.7700	23.8206	0.9655	-0.0082	0.2697
0.7920	22.8779	0.9238	-0.0095	0.2573
0.8140	21.9972	0.8762	-0.0103	0.2450
0.8360	21.1806	0.8325	-0.0110	0.2331
0.8580	20.4423	0.7907	-0.0120	0.2232
0.8800	19.8134	0.7590	-0.0131	0.2148
0.9020	19.2208	0.7287	-0.0136	0.2080
0.9240	18.7408	0.7090	-0.0146	0.2027
0.9460	18.3889	0.6913	-0.0146	0.1992
0.9680	18.2036	0.6785	-0.0153	0.1974
0.9900	18.1216	0.6773	-0.0155	0.1976
1.0120	18.1145	0.6780	-0.0161	0.1992
1.0340	18.1616	0.6873	-0.0168	0.2025

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	C1
0.0000	18.4148	0.6685	-0.0150	0.2071
0.0080	18.6941	0.6887	-0.0143	0.2148
0.0160	19.1054	0.7169	-0.0137	0.2245
0.0240	19.6568	0.7515	-0.0131	0.2363
0.0320	20.3438	0.7939	-0.0126	0.2503
0.0400	21.1550	0.8457	-0.0123	0.2660
0.0480	22.0742	0.9043	-0.0118	0.2827
0.0560	23.0849	0.9667	-0.0110	0.3001
0.0640	24.1688	1.0313	-0.0100	0.3180
0.0720	25.2980	1.0974	-0.0090	0.3361
0.0800	26.4334	1.1633	-0.0080	0.3538
0.0880	27.5348	1.2293	-0.0065	0.3708
0.0960	28.5710	1.2945	-0.0045	0.3864
0.1040	29.5174	1.3535	-0.0018	0.3999
0.1120	30.3585	1.4044	0.0016	0.4111
0.1200	31.0895	1.4480	0.0051	0.4198
0.1280	31.7116	1.4838	0.0086	0.4259
0.1360	32.2246	1.5117	0.0121	0.4294
0.1440	32.6247	1.5302	0.0158	0.4303
0.1520	32.9149	1.5369	0.0198	0.4288
0.1600	33.1106	1.5345	0.0228	0.4256
0.1680	33.2241	1.5266	0.0247	0.4208
0.1760	33.2564	1.5133	0.0261	0.4146
0.1840	33.2061	1.4934	0.0269	0.4073
0.1920	33.0694	1.4695	0.0260	0.3993
0.2000	32.8292	1.4427	0.0237	0.3906
0.2080	32.4594	1.4116	0.0211	0.3807
0.2160	31.9454	1.3766	0.0182	0.3699
0.2240	31.2814	1.3387	0.0153	0.3583
0.2320	30.4701	1.2974	0.0132	0.3459
0.2400	29.5296	1.2513	0.0112	0.3328
0.2480	28.4859	1.1996	0.0093	0.3191
0.2560	27.3738	1.1451	0.0071	0.3053
0.2640	26.2344	1.0917	0.0048	0.2917
0.2720	25.1092	1.0412	0.0024	0.2781
0.2800	24.0350	0.9917	-0.0004	0.2649
0.2880	23.0326	0.9430	-0.0035	0.2522
0.2960	22.1072	0.8952	-0.0062	0.2400
0.3040	21.2610	0.8473	-0.0078	0.2285
0.3120	20.5037	0.7997	-0.0085	0.2181
0.3200	19.8478	0.7564	-0.0091	0.2095
0.3280	19.2998	0.7208	-0.0097	0.2028
0.3360	18.8639	0.6933	-0.0105	0.1977
0.3440	18.5410	0.6731	-0.0114	0.1945
0.3520	18.3281	0.6608	-0.0123	0.1931
0.3600	18.2169	0.6550	-0.0133	0.1936
0.3680	18.1949	0.6525	-0.0145	0.1956
0.3760	18.2553	0.6553	-0.0152	0.1993

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	17.9214	0.6421	-0.0136	0.1911
0.0220	18.0065	0.6505	-0.0158	0.1953
0.0440	18.1927	0.6710	-0.0175	0.2029
0.0660	18.4282	0.7034	-0.0160	0.2130
0.0880	18.9466	0.7561	-0.0128	0.2280
0.1100	19.9822	0.8162	-0.0121	0.2477
0.1320	21.3728	0.8923	-0.0141	0.2718
0.1540	22.8025	0.9786	-0.0123	0.2972
0.1760	24.5198	1.0748	-0.0088	0.3249
0.1980	26.5909	1.1871	-0.0072	0.3567
0.2200	28.7440	1.3017	-0.0034	0.3882
0.2420	30.8042	1.4150	0.0039	0.4180
0.2640	32.9818	1.5247	0.0150	0.4424
0.2860	35.3913	1.6128	0.0264	0.4568
0.3080	37.5773	1.6399	0.0344	0.4601
0.3300	39.4121	1.6475	0.0376	0.4593
0.3520	41.1873	1.6548	0.0370	0.4576
0.3740	42.9248	1.6470	0.0356	0.4523
0.3960	44.5252	1.6207	0.0292	0.4400
0.4180	45.9505	1.5518	0.0183	0.4220
0.4400	47.0797	1.4872	0.0077	0.4055
0.4620	47.9411	1.4244	-0.0034	0.3893
0.4840	48.5967	1.3808	-0.0095	0.3766
0.5060	49.0871	1.3435	-0.0135	0.3661
0.5280	49.3877	1.3053	-0.0164	0.3581
0.5500	49.5236	1.2854	-0.0180	0.3526
0.5720	49.5080	1.2689	-0.0174	0.3456
0.5940	49.3467	1.2436	-0.0150	0.3373
0.6160	49.1435	1.2113	-0.0153	0.3306
0.6380	48.6725	1.1937	-0.0147	0.3257
0.6600	47.7439	1.1670	-0.0100	0.3205
0.6820	46.5534	1.1631	-0.0057	0.3182
0.7040	45.0169	1.1510	-0.0014	0.3173
0.7260	43.2049	1.1550	0.0055	0.3168
0.7480	41.3470	1.1590	0.0138	0.3183
0.7700	39.4993	1.1765	0.0190	0.3231
0.7920	37.5583	1.1878	0.0220	0.3254
0.8140	35.4102	1.1787	0.0225	0.3240
0.8360	33.1141	1.1515	0.0200	0.3174
0.8580	31.0188	1.1150	0.0143	0.3087
0.8800	29.0012	1.0711	0.0091	0.2964
0.9020	26.9634	1.0052	0.0049	0.2817
0.9240	25.0260	0.9515	-0.0018	0.2676
0.9460	23.2358	0.9006	-0.0055	0.2511
0.9680	21.9104	0.8435	-0.0091	0.2339
0.9900	20.7507	0.7825	-0.0111	0.2186
1.0120	19.6501	0.7180	-0.0107	0.2057
1.0340	18.8186	0.6814	-0.0125	0.1975
1.0560	18.3055	0.6550	-0.0125	0.1925
1.0780	18.0390	0.6420	-0.0138	0.1906
1.1000	17.9396	0.6431	-0.0141	0.1913

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	18.7507	0.6503	-0.0173	0.2128
0.0080	19.3774	0.6846	-0.0145	0.2273
0.0160	20.3159	0.7374	-0.0119	0.2466
0.0240	21.5929	0.8070	-0.0106	0.2708
0.0320	23.1921	0.8942	-0.0096	0.2990
0.0400	25.0776	0.9999	-0.0087	0.3305
0.0480	27.1899	1.1191	-0.0069	0.3635
0.0560	29.4502	1.2455	-0.0030	0.3964
0.0640	31.7864	1.3765	0.0030	0.4275
0.0720	34.1355	1.5075	0.0105	0.4551
0.0800	36.4311	1.6270	0.0194	0.4771
0.0880	38.6127	1.7234	0.0292	0.4923
0.0960	40.6388	1.7906	0.0373	0.5010
0.1040	42.4808	1.8311	0.0415	0.5044
0.1120	44.1164	1.8508	0.0414	0.5034
0.1200	45.5267	1.8531	0.0384	0.4981
0.1280	46.6971	1.8367	0.0341	0.4888
0.1360	47.6228	1.8003	0.0291	0.4761
0.1440	48.3154	1.7468	0.0227	0.4614
0.1520	48.8002	1.6855	0.0149	0.4460
0.1600	49.1108	1.6257	0.0072	0.4309
0.1680	49.2793	1.5720	0.0010	0.4166
0.1760	49.3245	1.5236	-0.0034	0.4029
0.1840	49.2406	1.4782	-0.0061	0.3897
0.1920	48.9925	1.4327	-0.0078	0.3768
0.2000	48.5238	1.3860	-0.0090	0.3642
0.2080	47.7761	1.3382	-0.0095	0.3520
0.2160	46.7115	1.2917	-0.0077	0.3400
0.2240	45.3278	1.2448	-0.0033	0.3280
0.2320	43.6560	1.1972	0.0031	0.3163
0.2400	41.7596	1.1531	0.0092	0.3054
0.2480	39.7111	1.1124	0.0131	0.2955
0.2560	37.5675	1.0752	0.0157	0.2864
0.2640	35.3724	1.0434	0.0182	0.2776
0.2720	33.1621	1.0114	0.0197	0.2688
0.2800	30.9687	0.9745	0.0191	0.2597
0.2880	28.8308	0.9365	0.0170	0.2500
0.2960	26.8065	0.8989	0.0144	0.2395
0.3040	24.9579	0.8558	0.0112	0.2289
0.3120	23.3239	0.8085	0.0069	0.2193
0.3200	21.9137	0.7657	0.0018	0.2110
0.3280	20.7287	0.7286	-0.0029	0.2033
0.3360	19.7804	0.6962	-0.0065	0.1966
0.3440	19.0768	0.6687	-0.0089	0.1915
0.3520	18.6046	0.6463	-0.0108	0.1884
0.3600	18.3337	0.6291	-0.0127	0.1874
0.3680	18.2355	0.6203	-0.0148	0.1889
0.3760	18.2938	0.6194	-0.0168	0.1934
0.3840	18.5139	0.6273	-0.0174	0.2011

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 16 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	17.4750	0.6552	-0.0154	0.1990
0.0220	18.0531	0.6963	-0.0148	0.2131
0.0440	19.0414	0.7585	-0.0140	0.2340
0.0660	20.4931	0.8470	-0.0130	0.2614
0.0880	22.4164	0.9554	-0.0121	0.2940
0.1100	24.7227	1.0807	-0.0096	0.3313
0.1320	27.3083	1.2232	-0.0036	0.3708
0.1540	30.1804	1.3760	0.0047	0.4100
0.1760	33.1866	1.5180	0.0168	0.4415
0.1980	36.3178	1.6255	0.0277	0.4618
0.2200	39.4412	1.6900	0.0345	0.4702
0.2420	42.4419	1.7102	0.0341	0.4694
0.2640	45.2845	1.6885	0.0242	0.4586
0.2860	47.8818	1.6243	0.0075	0.4390
0.3080	50.1868	1.5273	-0.0101	0.4182
0.3300	52.2667	1.4547	-0.0301	0.4011
0.3520	54.2340	1.3918	-0.0453	0.3874
0.3740	56.0574	1.3468	-0.0595	0.3779
0.3960	57.7352	1.3139	-0.0715	0.3727
0.4180	59.2330	1.3004	-0.0785	0.3683
0.4400	60.3912	1.2727	-0.0798	0.3642
0.4620	61.3180	1.2664	-0.0811	0.3611
0.4840	61.9877	1.2522	-0.0810	0.3589
0.5060	62.4509	1.2512	-0.0816	0.3571
0.5280	62.6243	1.2355	-0.0790	0.3533
0.5500	62.5255	1.2222	-0.0765	0.3486
0.5720	62.1782	1.2118	-0.0745	0.3451
0.5940	61.4478	1.2137	-0.0729	0.3409
0.6160	60.3409	1.1927	-0.0704	0.3334
0.6380	58.7727	1.1628	-0.0656	0.3250
0.6600	56.8766	1.1342	-0.0607	0.3145
0.6820	54.7527	1.1027	-0.0550	0.3047
0.7040	52.5466	1.0714	-0.0505	0.2952
0.7260	50.1935	1.0397	-0.0460	0.2860
0.7480	47.6362	1.0079	-0.0435	0.2784
0.7700	44.8244	0.9878	-0.0353	0.2698
0.7920	41.8930	0.9611	-0.0203	0.2641
0.8140	38.9385	0.9570	-0.0021	0.2647
0.8360	35.9965	0.9763	0.0123	0.2682
0.8580	33.0579	0.9773	0.0154	0.2691
0.8800	30.1980	0.9696	0.0132	0.2651
0.9020	27.4906	0.9359	0.0082	0.2573
0.9240	25.0430	0.8879	0.0027	0.2453
0.9460	22.8488	0.8375	-0.0042	0.2317
0.9680	21.0180	0.7767	-0.0079	0.2164
0.9900	19.5505	0.7235	-0.0109	0.2023
1.0120	18.4456	0.6707	-0.0117	0.1920
1.0340	17.7196	0.6366	-0.0124	0.1854
1.0560	17.3508	0.6213	-0.0139	0.1833
1.0780	17.2425	0.6191	-0.0149	0.1852
1.1000	17.3398	0.6327	-0.0155	0.1920

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 16 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	17.7180	0.6138	-0.0157	0.1964
0.0080	18.2093	0.6311	-0.0146	0.2092
0.0160	19.0903	0.6689	-0.0119	0.2280
0.0240	20.4506	0.7359	-0.0096	0.2537
0.0320	22.3247	0.8304	-0.0083	0.2861
0.0400	24.6738	0.9502	-0.0070	0.3239
0.0480	27.4126	1.0953	-0.0046	0.3652
0.0560	30.4374	1.2607	-0.0001	0.4068
0.0640	33.6442	1.4338	0.0074	0.4452
0.0720	36.9347	1.6016	0.0165	0.4772
0.0800	40.2024	1.7437	0.0244	0.5003
0.0880	43.3416	1.8434	0.0280	0.5139
0.0960	46.2649	1.9011	0.0256	0.5182
0.1040	48.9227	1.9189	0.0181	0.5138
0.1120	51.3161	1.9001	0.0068	0.5021
0.1200	53.4741	1.8487	-0.0078	0.4863
0.1280	55.4094	1.7759	-0.0238	0.4694
0.1360	57.1126	1.7015	-0.0391	0.4533
0.1440	58.5653	1.6320	-0.0523	0.4383
0.1520	59.7517	1.5652	-0.0624	0.4248
0.1600	60.6809	1.5095	-0.0704	0.4132
0.1680	61.3746	1.4676	-0.0771	0.4036
0.1760	61.8448	1.4354	-0.0815	0.3953
0.1840	62.0972	1.4106	-0.0825	0.3868
0.1920	62.1319	1.3885	-0.0809	0.3778
0.2000	61.9229	1.3666	-0.0779	0.3684
0.2080	61.4036	1.3401	-0.0753	0.3587
0.2160	60.4846	1.3043	-0.0733	0.3485
0.2240	59.1142	1.2692	-0.0697	0.3370
0.2320	57.3279	1.2361	-0.0635	0.3228
0.2400	55.2079	1.1898	-0.0557	0.3065
0.2480	52.8202	1.1293	-0.0487	0.2901
0.2560	50.1952	1.0705	-0.0438	0.2747
0.2640	47.3555	1.0187	-0.0395	0.2595
0.2720	44.3439	0.9685	-0.0334	0.2438
0.2800	41.2272	0.9127	-0.0251	0.2280
0.2880	38.0804	0.8490	-0.0165	0.2137
0.2960	34.9761	0.7887	-0.0081	0.2023
0.3040	31.9929	0.7449	0.0007	0.1939
0.3120	29.2107	0.7154	0.0089	0.1883
0.3200	26.6776	0.6906	0.0144	0.1853
0.3280	24.4070	0.6709	0.0155	0.1841
0.3360	22.4193	0.6605	0.0121	0.1835
0.3440	20.7633	0.6572	0.0060	0.1821
0.3520	19.4803	0.6515	0.0003	0.1799
0.3600	18.5654	0.6369	-0.0038	0.1779
0.3680	17.9714	0.6167	-0.0071	0.1774
0.3760	17.6497	0.6037	-0.0108	0.1795
0.3840	17.5744	0.6031	-0.0142	0.1844

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 24 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	C1
0.0000	27.1974	1.0429	-0.0051	0.3020
0.0080	27.4313	1.0656	-0.0055	0.3103
0.0160	27.7526	1.0939	-0.0044	0.3200
0.0240	28.1816	1.1282	-0.0026	0.3310
0.0320	28.7462	1.1687	-0.0006	0.3434
0.0400	29.4656	1.2156	0.0016	0.3567
0.0480	30.3404	1.2664	0.0039	0.3706
0.0560	31.3484	1.3195	0.0068	0.3846
0.0640	32.4548	1.3757	0.0100	0.3980
0.0720	33.6128	1.4322	0.0135	0.4101
0.0800	34.7666	1.4834	0.0177	0.4199
0.0880	35.8656	1.5254	0.0224	0.4274
0.0960	36.8778	1.5567	0.0271	0.4324
0.1040	37.7942	1.5768	0.0311	0.4355
0.1120	38.6220	1.5906	0.0338	0.4373
0.1200	39.3668	1.6008	0.0353	0.4381
0.1280	40.0239	1.6075	0.0362	0.4380
0.1360	40.5855	1.6105	0.0369	0.4370
0.1440	41.0484	1.6089	0.0369	0.4351
0.1520	41.4073	1.6026	0.0368	0.4321
0.1600	41.6717	1.5952	0.0363	0.4279
0.1680	41.8542	1.5861	0.0347	0.4228
0.1760	41.9519	1.5701	0.0333	0.4167
0.1840	41.9671	1.5491	0.0323	0.4098
0.1920	41.9121	1.5282	0.0321	0.4023
0.2000	41.7959	1.5050	0.0331	0.3943
0.2080	41.6152	1.4783	0.0340	0.3860
0.2160	41.3489	1.4491	0.0336	0.3780
0.2240	40.9667	1.4186	0.0316	0.3701
0.2320	40.4457	1.3887	0.0295	0.3623
0.2400	39.7833	1.3604	0.0282	0.3544
0.2480	38.9916	1.3307	0.0277	0.3465
0.2560	38.0883	1.2979	0.0267	0.3390
0.2640	37.0929	1.2648	0.0255	0.3317
0.2720	36.0343	1.2346	0.0243	0.3249
0.2800	34.9424	1.2073	0.0232	0.3184
0.2880	33.8400	1.1795	0.0224	0.3121
0.2960	32.7584	1.1508	0.0212	0.3064
0.3040	31.7391	1.1274	0.0189	0.3018
0.3120	30.8123	1.1102	0.0163	0.2978
0.3200	29.9864	1.0924	0.0138	0.2940
0.3280	29.2562	1.0734	0.0117	0.2906
0.3360	28.6195	1.0576	0.0097	0.2878
0.3440	28.0815	1.0446	0.0076	0.2854
0.3520	27.6475	1.0323	0.0060	0.2839
0.3600	27.3202	1.0209	0.0049	0.2833
0.3680	27.1037	1.0130	0.0035	0.2842
0.3760	26.9978	1.0112	0.0015	0.2869
0.3840	27.0010	1.0172	-0.0011	0.2916

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	27.2599	1.0889	-0.0068	0.3073
0.0220	27.5630	1.1219	-0.0059	0.3181
0.0440	28.0329	1.1699	-0.0031	0.3312
0.0660	28.8240	1.2252	-0.0012	0.3486
0.0880	29.9133	1.2908	0.0021	0.3684
0.1100	31.3448	1.3658	0.0065	0.3878
0.1320	33.0744	1.4412	0.0134	0.4060
0.1540	34.9941	1.5034	0.0208	0.4191
0.1760	36.9116	1.5497	0.0280	0.4261
0.1980	38.8054	1.5764	0.0323	0.4301
0.2200	40.6872	1.5935	0.0347	0.4322
0.2420	42.5907	1.6008	0.0336	0.4324
0.2640	44.4954	1.5968	0.0282	0.4266
0.2860	46.2918	1.5609	0.0197	0.4157
0.3080	47.9518	1.5128	0.0069	0.4018
0.3300	49.4049	1.4638	-0.0068	0.3884
0.3520	50.7410	1.4087	-0.0156	0.3756
0.3740	51.8498	1.3582	-0.0262	0.3646
0.3960	52.8564	1.3134	-0.0327	0.3569
0.4180	53.7861	1.2979	-0.0426	0.3521
0.4400	54.5914	1.2746	-0.0503	0.3476
0.4620	55.2462	1.2652	-0.0568	0.3460
0.4840	55.6695	1.2589	-0.0613	0.3448
0.5060	55.8867	1.2526	-0.0621	0.3425
0.5280	55.9944	1.2512	-0.0627	0.3408
0.5500	55.9675	1.2441	-0.0618	0.3384
0.5720	55.8479	1.2323	-0.0608	0.3349
0.5940	55.5830	1.2179	-0.0599	0.3307
0.6160	55.0444	1.1964	-0.0591	0.3234
0.6380	54.1428	1.1731	-0.0557	0.3164
0.6600	53.0179	1.1517	-0.0516	0.3107
0.6820	51.7772	1.1364	-0.0488	0.3069
0.7040	50.4614	1.1242	-0.0469	0.3029
0.7260	48.9633	1.1045	-0.0433	0.2979
0.7480	47.3151	1.0917	-0.0366	0.2955
0.7700	45.5829	1.0939	-0.0215	0.2945
0.7920	43.7587	1.0928	-0.0035	0.2955
0.8140	41.8318	1.1114	0.0116	0.2996
0.8360	39.8743	1.1338	0.0189	0.3067
0.8580	38.0568	1.1561	0.0223	0.3114
0.8800	36.2256	1.1611	0.0212	0.3127
0.9020	34.4446	1.1575	0.0197	0.3105
0.9240	32.7160	1.1385	0.0163	0.3068
0.9460	31.2247	1.1193	0.0145	0.3018
0.9680	30.0091	1.0964	0.0104	0.2971
0.9900	28.9920	1.0736	0.0073	0.2925
1.0120	28.1671	1.0542	0.0041	0.2896
1.0340	27.5235	1.0416	0.0014	0.2892
1.0560	27.1417	1.0467	-0.0026	0.2914
1.0780	27.0139	1.0530	-0.0048	0.2950
1.1000	27.1280	1.0692	-0.0063	0.3004

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	27.2926	0.9997	-0.0034	0.2979
0.0080	27.7581	1.0283	-0.0019	0.3104
0.0160	28.4794	1.0742	0.0017	0.3259
0.0240	29.5181	1.1347	0.0054	0.3444
0.0320	30.8858	1.2038	0.0086	0.3652
0.0400	32.5407	1.2849	0.0114	0.3871
0.0480	34.4125	1.3766	0.0143	0.4085
0.0560	36.4196	1.4663	0.0187	0.4278
0.0640	38.4914	1.5463	0.0248	0.4440
0.0720	40.5835	1.6155	0.0297	0.4571
0.0800	42.6522	1.6727	0.0315	0.4669
0.0880	44.6472	1.7178	0.0303	0.4728
0.0960	46.5172	1.7485	0.0268	0.4740
0.1040	48.2153	1.7567	0.0220	0.4703
0.1120	49.7164	1.7416	0.0155	0.4627
0.1200	51.0155	1.7080	0.0065	0.4524
0.1280	52.1265	1.6619	-0.0039	0.4405
0.1360	53.0861	1.6147	-0.0149	0.4281
0.1440	53.9232	1.5706	-0.0249	0.4158
0.1520	54.6266	1.5226	-0.0329	0.4040
0.1600	55.1633	1.4708	-0.0385	0.3931
0.1680	55.5252	1.4258	-0.0430	0.3837
0.1760	55.7348	1.3912	-0.0462	0.3756
0.1840	55.8252	1.3653	-0.0480	0.3682
0.1920	55.8117	1.3454	-0.0487	0.3607
0.2000	55.6733	1.3239	-0.0486	0.3523
0.2080	55.3629	1.2940	-0.0487	0.3436
0.2160	54.8234	1.2575	-0.0493	0.3350
0.2240	54.0165	1.2233	-0.0494	0.3264
0.2320	52.9484	1.1956	-0.0479	0.3169
0.2400	51.6612	1.1668	-0.0456	0.3066
0.2480	50.1806	1.1298	-0.0438	0.2965
0.2560	48.5059	1.0897	-0.0417	0.2868
0.2640	46.6577	1.0563	-0.0391	0.2771
0.2720	44.6899	1.0258	-0.0343	0.2669
0.2800	42.6732	0.9899	-0.0268	0.2568
0.2880	40.6685	0.9502	-0.0177	0.2488
0.2960	38.7136	0.9171	-0.0083	0.2439
0.3040	36.8313	0.8994	0.0016	0.2419
0.3120	35.0495	0.8950	0.0112	0.2419
0.3200	33.3970	0.8909	0.0178	0.2434
0.3280	31.8913	0.8845	0.0197	0.2467
0.3360	30.5590	0.8900	0.0177	0.2512
0.3440	29.4439	0.9105	0.0139	0.2553
0.3520	28.5676	0.9272	0.0106	0.2582
0.3600	27.9079	0.9295	0.0088	0.2610
0.3680	27.4262	0.9275	0.0073	0.2646
0.3760	27.1128	0.9315	0.0052	0.2692
0.3840	26.9902	0.9445	0.0022	0.2752
0.3920	27.0684	0.9617	-0.0005	0.2830

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	35.3041	1.3661	0.0235	0.3760
0.0220	35.5755	1.3839	0.0255	0.3816
0.0440	35.9276	1.4060	0.0263	0.3881
0.0660	36.3759	1.4321	0.0277	0.3941
0.0880	36.9304	1.4488	0.0275	0.3990
0.1100	37.6184	1.4726	0.0288	0.4051
0.1320	38.4205	1.4893	0.0296	0.4101
0.1540	39.2577	1.5065	0.0303	0.4129
0.1760	40.1930	1.5178	0.0292	0.4133
0.1980	41.1771	1.5115	0.0299	0.4092
0.2200	42.1538	1.5046	0.0284	0.4058
0.2420	43.0930	1.4859	0.0264	0.3995
0.2640	44.0029	1.4626	0.0213	0.3912
0.2860	44.8522	1.4182	0.0119	0.3826
0.3080	45.5754	1.3866	0.0037	0.3750
0.3300	46.2455	1.3576	-0.0010	0.3720
0.3520	46.8397	1.3557	-0.0054	0.3707
0.3740	47.4061	1.3496	-0.0076	0.3676
0.3960	47.9081	1.3366	-0.0113	0.3620
0.4180	48.2891	1.3124	-0.0135	0.3547
0.4400	48.5572	1.2872	-0.0175	0.3485
0.4620	48.7481	1.2713	-0.0183	0.3443
0.4840	48.8736	1.2598	-0.0204	0.3409
0.5060	48.9140	1.2494	-0.0209	0.3379
0.5280	48.9084	1.2431	-0.0201	0.3360
0.5500	48.8475	1.2319	-0.0216	0.3330
0.5720	48.6918	1.2102	-0.0243	0.3287
0.5940	48.4301	1.1975	-0.0242	0.3270
0.6160	48.0607	1.1968	-0.0210	0.3256
0.6380	47.5391	1.1951	-0.0181	0.3234
0.6600	46.9141	1.1910	-0.0130	0.3230
0.6820	46.1854	1.1938	-0.0085	0.3246
0.7040	45.3643	1.2076	-0.0040	0.3272
0.7260	44.5266	1.2234	0.0001	0.3303
0.7480	43.6030	1.2355	0.0040	0.3328
0.7700	42.6369	1.2404	0.0102	0.3354
0.7920	41.6473	1.2593	0.0145	0.3389
0.8140	40.6666	1.2648	0.0172	0.3419
0.8360	39.7570	1.2767	0.0204	0.3454
0.8580	38.9256	1.2882	0.0236	0.3490
0.8800	38.1384	1.2921	0.0235	0.3492
0.9020	37.4512	1.2849	0.0252	0.3495
0.9240	36.8337	1.2902	0.0240	0.3490
0.9460	36.3421	1.2849	0.0244	0.3491
0.9680	35.8870	1.2904	0.0245	0.3519
0.9900	35.5090	1.2973	0.0235	0.3537
1.0120	35.2221	1.2973	0.0220	0.3561
1.0340	35.0742	1.3060	0.0213	0.3591
1.0560	35.0130	1.3138	0.0207	0.3618
1.0780	35.0618	1.3239	0.0218	0.3650

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	C1
0.0000	35.3886	1.3264	0.0205	0.3702
0.0080	35.6772	1.3510	0.0219	0.3773
0.0160	36.0631	1.3778	0.0237	0.3848
0.0240	36.5610	1.4053	0.0256	0.3927
0.0320	37.1848	1.4380	0.0271	0.4009
0.0400	37.9344	1.4727	0.0283	0.4090
0.0480	38.7922	1.5043	0.0293	0.4167
0.0560	39.7318	1.5343	0.0302	0.4233
0.0640	40.7281	1.5610	0.0308	0.4283
0.0720	41.7567	1.5821	0.0308	0.4317
0.0800	42.7862	1.5979	0.0300	0.4336
0.0880	43.7773	1.6079	0.0286	0.4341
0.0960	44.6940	1.6107	0.0263	0.4328
0.1040	45.5139	1.6048	0.0223	0.4297
0.1120	46.2298	1.5915	0.0175	0.4242
0.1200	46.8555	1.5727	0.0122	0.4170
0.1280	47.3985	1.5471	0.0077	0.4086
0.1360	47.8542	1.5143	0.0039	0.4001
0.1440	48.2158	1.4802	0.0002	0.3920
0.1520	48.4860	1.4498	-0.0032	0.3845
0.1600	48.6772	1.4212	-0.0065	0.3774
0.1680	48.7930	1.3927	-0.0090	0.3705
0.1760	48.8407	1.3684	-0.0105	0.3636
0.1840	48.8302	1.3436	-0.0114	0.3566
0.1920	48.7564	1.3162	-0.0116	0.3502
0.2000	48.6058	1.2941	-0.0119	0.3442
0.2080	48.3571	1.2736	-0.0125	0.3382
0.2160	47.9851	1.2489	-0.0124	0.3322
0.2240	47.4763	1.2266	-0.0106	0.3266
0.2320	46.8344	1.2071	-0.0077	0.3214
0.2400	46.0681	1.1864	-0.0046	0.3170
0.2480	45.1866	1.1695	-0.0014	0.3138
0.2560	44.2135	1.1582	0.0017	0.3111
0.2640	43.1891	1.1490	0.0047	0.3088
0.2720	42.1584	1.1421	0.0077	0.3073
0.2800	41.1535	1.1362	0.0110	0.3065
0.2880	40.1914	1.1307	0.0145	0.3069
0.2960	39.2863	1.1325	0.0179	0.3088
0.3040	38.4578	1.1433	0.0206	0.3117
0.3120	37.7233	1.1578	0.0222	0.3150
0.3200	37.0876	1.1715	0.0228	0.3182
0.3280	36.5464	1.1824	0.0231	0.3212
0.3360	36.0962	1.1916	0.0231	0.3244
0.3440	35.7325	1.1998	0.0227	0.3279
0.3520	35.4468	1.2073	0.0222	0.3321
0.3600	35.2361	1.2196	0.0218	0.3367
0.3680	35.1056	1.2347	0.0210	0.3413
0.3760	35.0570	1.2477	0.0199	0.3462
0.3840	35.0874	1.2633	0.0194	0.3517
0.3920	35.1976	1.2832	0.0196	0.3579

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 32 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	35.4136	1.3373	0.0226	0.3675
0.0220	35.7707	1.3719	0.0252	0.3768
0.0440	36.3208	1.4080	0.0277	0.3862
0.0660	37.1329	1.4454	0.0301	0.3958
0.0880	38.2444	1.4811	0.0313	0.4046
0.1100	39.5865	1.5085	0.0333	0.4107
0.1320	41.1493	1.5351	0.0305	0.4140
0.1540	42.8424	1.5359	0.0275	0.4133
0.1760	44.6365	1.5334	0.0225	0.4110
0.1980	46.3222	1.5130	0.0112	0.4033
0.2200	47.9319	1.4703	-0.0010	0.3931
0.2420	49.4731	1.4299	-0.0119	0.3849
0.2640	50.9481	1.3975	-0.0223	0.3769
0.2860	52.3857	1.3697	-0.0338	0.3718
0.3080	53.8549	1.3465	-0.0437	0.3680
0.3300	55.3411	1.3327	-0.0545	0.3663
0.3520	56.7338	1.3187	-0.0630	0.3643
0.3740	58.0715	1.3069	-0.0704	0.3620
0.3960	59.2706	1.2953	-0.0733	0.3619
0.4180	60.3604	1.2953	-0.0751	0.3604
0.4400	61.2646	1.2925	-0.0764	0.3604
0.4620	62.0321	1.2955	-0.0777	0.3610
0.4840	62.6689	1.2942	-0.0786	0.3618
0.5060	63.1016	1.2965	-0.0791	0.3602
0.5280	63.3413	1.2859	-0.0777	0.3578
0.5500	63.3501	1.2804	-0.0765	0.3553
0.5720	63.1891	1.2783	-0.0753	0.3523
0.5940	62.8558	1.2638	-0.0739	0.3469
0.6160	62.2950	1.2492	-0.0718	0.3414
0.6380	61.4539	1.2253	-0.0685	0.3351
0.6600	60.3484	1.2050	-0.0649	0.3298
0.6820	59.0204	1.1958	-0.0621	0.3247
0.7040	57.5561	1.1715	-0.0586	0.3180
0.7260	55.9925	1.1520	-0.0553	0.3123
0.7480	54.3234	1.1382	-0.0528	0.3068
0.7700	52.6611	1.1102	-0.0495	0.3001
0.7920	51.0440	1.0906	-0.0461	0.2958
0.8140	49.4520	1.0835	-0.0434	0.2921
0.8360	47.8442	1.0683	-0.0378	0.2869
0.8580	46.1882	1.0556	-0.0283	0.2853
0.8800	44.5307	1.0584	-0.0164	0.2864
0.9020	42.8917	1.0754	-0.0020	0.2908
0.9240	41.3521	1.1022	0.0129	0.2988
0.9460	39.8823	1.1399	0.0211	0.3067
0.9680	38.5927	1.1702	0.0216	0.3155
0.9900	37.5265	1.2064	0.0225	0.3229
1.0120	36.6892	1.2202	0.0238	0.3286
1.0340	36.0087	1.2323	0.0239	0.3330
1.0560	35.5063	1.2476	0.0223	0.3385
1.0780	35.2414	1.2605	0.0228	0.3443
1.1000	35.1812	1.2846	0.0220	0.3515
1.1220	35.2817	1.3101	0.0221	0.3592

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 32 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	35.2848	1.2038	0.0199	0.3448
0.0080	35.6248	1.2447	0.0208	0.3581
0.0160	36.1951	1.2989	0.0224	0.3719
0.0240	37.0480	1.3568	0.0247	0.3857
0.0320	38.1933	1.4119	0.0267	0.3999
0.0400	39.5954	1.4674	0.0272	0.4144
0.0480	41.2023	1.5285	0.0262	0.4281
0.0560	42.9578	1.5915	0.0241	0.4394
0.0640	44.7906	1.6432	0.0215	0.4465
0.0720	46.6228	1.6712	0.0171	0.4488
0.0800	48.3916	1.6736	0.0100	0.4468
0.0880	50.0806	1.6593	0.0014	0.4416
0.0960	51.7133	1.6365	-0.0084	0.4346
0.1040	53.3018	1.6029	-0.0191	0.4269
0.1120	54.8257	1.5604	-0.0304	0.4195
0.1200	56.2589	1.5224	-0.0413	0.4125
0.1280	57.5915	1.4914	-0.0509	0.4056
0.1360	58.8104	1.4624	-0.0584	0.3989
0.1440	59.8796	1.4313	-0.0642	0.3928
0.1520	60.7609	1.3991	-0.0691	0.3874
0.1600	61.4539	1.3741	-0.0737	0.3831
0.1680	61.9965	1.3613	-0.0778	0.3792
0.1760	62.4258	1.3502	-0.0805	0.3752
0.1840	62.7473	1.3398	-0.0811	0.3711
0.1920	62.9355	1.3300	-0.0808	0.3668
0.2000	62.9460	1.3173	-0.0790	0.3619
0.2080	62.7546	1.3044	-0.0767	0.3566
0.2160	62.3384	1.2886	-0.0748	0.3507
0.2240	61.6626	1.2653	-0.0724	0.3442
0.2320	60.7152	1.2444	-0.0692	0.3371
0.2400	59.5168	1.2241	-0.0653	0.3287
0.2480	58.1047	1.1971	-0.0604	0.3190
0.2560	56.5242	1.1639	-0.0551	0.3089
0.2640	54.8237	1.1277	-0.0497	0.2988
0.2720	53.0610	1.0921	-0.0448	0.2890
0.2800	51.2902	1.0610	-0.0416	0.2799
0.2880	49.5281	1.0304	-0.0400	0.2715
0.2960	47.7510	0.9965	-0.0380	0.2642
0.3040	45.9482	0.9678	-0.0347	0.2584
0.3120	44.1539	0.9486	-0.0298	0.2537
0.3200	42.4360	0.9315	-0.0239	0.2502
0.3280	40.8612	0.9157	-0.0167	0.2487
0.3360	39.4802	0.9111	-0.0084	0.2498
0.3440	38.3208	0.9167	0.0004	0.2536
0.3520	37.3804	0.9310	0.0084	0.2600
0.3600	36.6265	0.9538	0.0141	0.2686
0.3680	36.0190	0.9810	0.0170	0.2782
0.3760	35.5519	1.0114	0.0176	0.2885
0.3840	35.2524	1.0524	0.0171	0.2997
0.3920	35.1345	1.0965	0.0166	0.3116
0.4000	35.1797	1.1335	0.0171	0.3242

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	43.7578	1.3467	0.0176	0.3634
0.0220	43.9924	1.3552	0.0195	0.3663
0.0440	44.2800	1.3683	0.0175	0.3687
0.0660	44.7174	1.3662	0.0153	0.3688
0.0880	45.2669	1.3675	0.0093	0.3694
0.1100	45.9501	1.3628	0.0047	0.3688
0.1320	46.7093	1.3606	0.0001	0.3669
0.1540	47.4751	1.3417	-0.0053	0.3635
0.1760	48.2341	1.3300	-0.0119	0.3600
0.1980	49.0172	1.3214	-0.0165	0.3571
0.2200	49.7946	1.3080	-0.0186	0.3536
0.2420	50.5462	1.2957	-0.0239	0.3509
0.2640	51.1843	1.2730	-0.0287	0.3467
0.2860	51.8058	1.2602	-0.0357	0.3447
0.3080	52.4056	1.2583	-0.0407	0.3454
0.3300	52.9620	1.2627	-0.0455	0.3466
0.3520	53.5420	1.2642	-0.0503	0.3474
0.3740	54.1028	1.2666	-0.0534	0.3470
0.3960	54.5761	1.2649	-0.0574	0.3478
0.4180	54.9577	1.2623	-0.0605	0.3467
0.4400	55.2401	1.2593	-0.0638	0.3462
0.4620	55.4200	1.2536	-0.0640	0.3442
0.4840	55.5515	1.2496	-0.0639	0.3426
0.5060	55.6102	1.2512	-0.0632	0.3413
0.5280	55.6073	1.2417	-0.0621	0.3377
0.5500	55.5278	1.2277	-0.0611	0.3347
0.5720	55.4088	1.2210	-0.0601	0.3320
0.5940	55.2601	1.2072	-0.0597	0.3295
0.6160	55.0051	1.1960	-0.0596	0.3276
0.6380	54.5745	1.1875	-0.0590	0.3249
0.6600	53.9975	1.1765	-0.0570	0.3221
0.6820	53.3072	1.1628	-0.0546	0.3190
0.7040	52.5605	1.1586	-0.0531	0.3169
0.7260	51.8438	1.1518	-0.0509	0.3151
0.7480	51.1259	1.1475	-0.0491	0.3136
0.7700	50.4160	1.1475	-0.0486	0.3134
0.7920	49.7248	1.1403	-0.0471	0.3117
0.8140	48.9313	1.1383	-0.0434	0.3105
0.8360	48.1577	1.1311	-0.0381	0.3092
0.8580	47.4074	1.1438	-0.0289	0.3103
0.8800	46.7033	1.1479	-0.0167	0.3119
0.9020	46.0740	1.1600	-0.0092	0.3144
0.9240	45.5064	1.1768	-0.0042	0.3190
0.9460	44.9874	1.1950	-0.0002	0.3258
0.9680	44.5309	1.2325	0.0065	0.3340
0.9900	44.1770	1.2605	0.0127	0.3400
1.0120	43.8300	1.2814	0.0190	0.3466
1.0340	43.5969	1.3033	0.0206	0.3520
1.0560	43.5070	1.3151	0.0215	0.3562
1.0780	43.4916	1.3338	0.0188	0.3600
1.1000	43.5597	1.3364	0.0178	0.3599

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	43.8967	1.2843	0.0148	0.3498
0.0080	44.1783	1.3053	0.0164	0.3558
0.0160	44.5670	1.3293	0.0168	0.3615
0.0240	45.0791	1.3549	0.0157	0.3667
0.0320	45.7099	1.3759	0.0133	0.3712
0.0400	46.4328	1.3929	0.0095	0.3750
0.0480	47.2139	1.4053	0.0041	0.3774
0.0560	48.0233	1.4098	-0.0019	0.3782
0.0640	48.8422	1.4119	-0.0075	0.3780
0.0720	49.6534	1.4110	-0.0120	0.3768
0.0800	50.4361	1.4025	-0.0154	0.3751
0.0880	51.1761	1.3924	-0.0188	0.3731
0.0960	51.8710	1.3852	-0.0229	0.3705
0.1040	52.5280	1.3758	-0.0276	0.3670
0.1120	53.1522	1.3630	-0.0325	0.3632
0.1200	53.7345	1.3471	-0.0370	0.3596
0.1280	54.2541	1.3299	-0.0413	0.3566
0.1360	54.6913	1.3140	-0.0456	0.3539
0.1440	55.0385	1.3009	-0.0497	0.3512
0.1520	55.3020	1.2895	-0.0528	0.3484
0.1600	55.4947	1.2774	-0.0551	0.3459
0.1680	55.6263	1.2681	-0.0572	0.3439
0.1760	55.6990	1.2643	-0.0587	0.3419
0.1840	55.7133	1.2607	-0.0593	0.3394
0.1920	55.6699	1.2538	-0.0588	0.3365
0.2000	55.5702	1.2463	-0.0583	0.3333
0.2080	55.4041	1.2351	-0.0585	0.3298
0.2160	55.1452	1.2198	-0.0585	0.3259
0.2240	54.7696	1.2046	-0.0580	0.3217
0.2320	54.2665	1.1876	-0.0565	0.3169
0.2400	53.6472	1.1673	-0.0540	0.3119
0.2480	52.9427	1.1494	-0.0510	0.3073
0.2560	52.1862	1.1328	-0.0480	0.3029
0.2640	51.4058	1.1172	-0.0460	0.2993
0.2720	50.6127	1.1071	-0.0451	0.2964
0.2800	49.8039	1.0999	-0.0443	0.2937
0.2880	48.9791	1.0893	-0.0425	0.2913
0.2960	48.1568	1.0788	-0.0400	0.2892
0.3040	47.3667	1.0714	-0.0375	0.2877
0.3120	46.6334	1.0656	-0.0344	0.2870
0.3200	45.9711	1.0647	-0.0302	0.2874
0.3280	45.3862	1.0704	-0.0246	0.2889
0.3360	44.8879	1.0779	-0.0179	0.2913
0.3440	44.4835	1.0890	-0.0110	0.2949
0.3520	44.1689	1.1057	-0.0040	0.2994
0.3600	43.9350	1.1224	0.0021	0.3046
0.3680	43.7717	1.1405	0.0062	0.3107
0.3760	43.6680	1.1620	0.0082	0.3174
0.3840	43.6217	1.1855	0.0093	0.3245
0.3920	43.6430	1.2127	0.0104	0.3318
0.4000	43.7406	1.2408	0.0118	0.3391

70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0274
 Alpha Min. = 48 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	50.0820	1.2211	-0.0473	0.3317
0.0220	50.3467	1.2296	-0.0497	0.3338
0.0440	50.6486	1.2322	-0.0508	0.3351
0.0660	51.0669	1.2434	-0.0532	0.3374
0.0880	51.5937	1.2397	-0.0553	0.3386
0.1100	52.2295	1.2453	-0.0578	0.3397
0.1320	52.9482	1.2398	-0.0597	0.3404
0.1540	53.7339	1.2489	-0.0627	0.3412
0.1760	54.5354	1.2427	-0.0637	0.3417
0.1980	55.3836	1.2471	-0.0646	0.3420
0.2200	56.2392	1.2350	-0.0659	0.3421
0.2420	57.0575	1.2402	-0.0673	0.3441
0.2640	57.8507	1.2459	-0.0697	0.3460
0.2860	58.5805	1.2489	-0.0703	0.3457
0.3080	59.3241	1.2493	-0.0710	0.3456
0.3300	59.9498	1.2509	-0.0711	0.3466
0.3520	60.4900	1.2570	-0.0726	0.3488
0.3740	61.0071	1.2581	-0.0743	0.3489
0.3960	61.5023	1.2561	-0.0752	0.3495
0.4180	61.9284	1.2652	-0.0770	0.3503
0.4400	62.3102	1.2566	-0.0760	0.3489
0.4620	62.6156	1.2516	-0.0753	0.3484
0.4840	62.7946	1.2536	-0.0768	0.3487
0.5060	62.8033	1.2549	-0.0759	0.3487
0.5280	62.7500	1.2574	-0.0748	0.3477
0.5500	62.6434	1.2533	-0.0734	0.3460
0.5720	62.5072	1.2466	-0.0733	0.3424
0.5940	62.2358	1.2381	-0.0719	0.3398
0.6160	61.8692	1.2313	-0.0708	0.3367
0.6380	61.4296	1.2210	-0.0695	0.3342
0.6600	60.8282	1.2122	-0.0677	0.3318
0.6820	60.1293	1.2032	-0.0663	0.3304
0.7040	59.3565	1.2011	-0.0649	0.3284
0.7260	58.5790	1.1838	-0.0626	0.3239
0.7480	57.7529	1.1745	-0.0606	0.3212
0.7700	56.9214	1.1680	-0.0600	0.3183
0.7920	56.0803	1.1597	-0.0586	0.3160
0.8140	55.2785	1.1470	-0.0571	0.3143
0.8360	54.4404	1.1477	-0.0563	0.3131
0.8580	53.6387	1.1393	-0.0543	0.3107
0.8800	52.8771	1.1390	-0.0533	0.3103
0.9020	52.2031	1.1341	-0.0524	0.3099
0.9240	51.5846	1.1433	-0.0525	0.3130
0.9460	51.0947	1.1507	-0.0521	0.3135
0.9680	50.6732	1.1505	-0.0519	0.3138
0.9900	50.3149	1.1578	-0.0508	0.3155
1.0120	50.0449	1.1658	-0.0492	0.3167
1.0340	49.8304	1.1637	-0.0495	0.3165
1.0560	49.6856	1.1677	-0.0498	0.3190
1.0780	49.5929	1.1865	-0.0502	0.3223
1.1000	49.6216	1.1949	-0.0500	0.3252
1.1220	49.7244	1.2033	-0.0506	0.3269
1.1440	49.8290	1.2108	-0.0505	0.3291

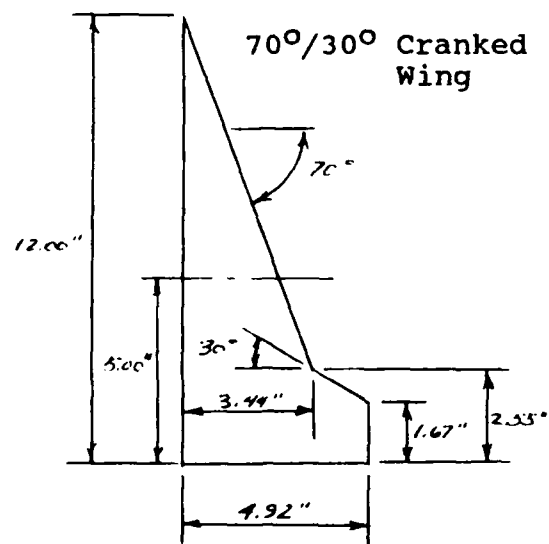
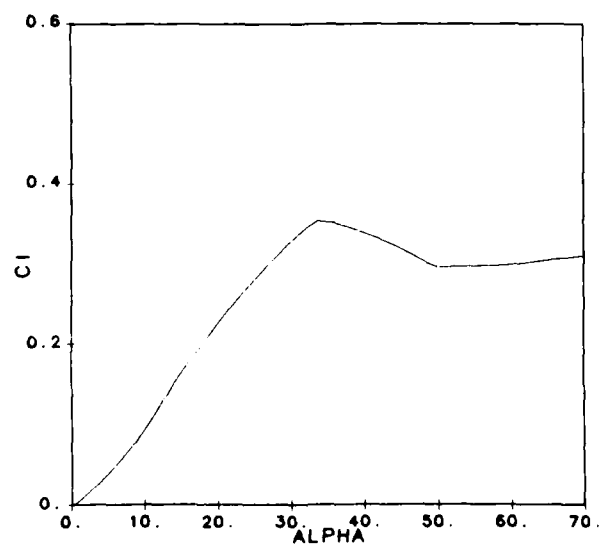
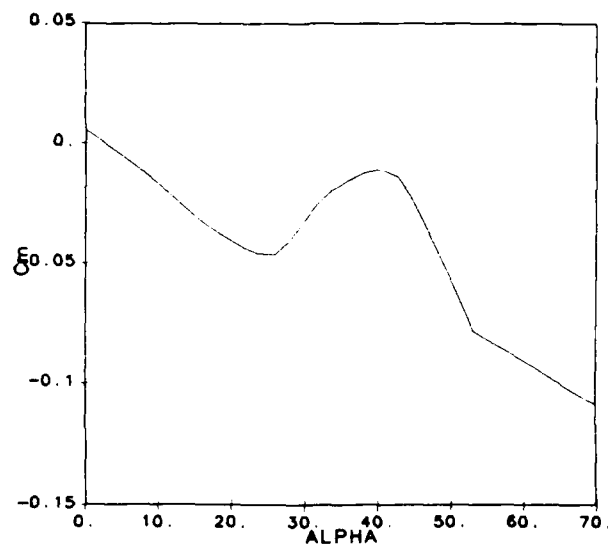
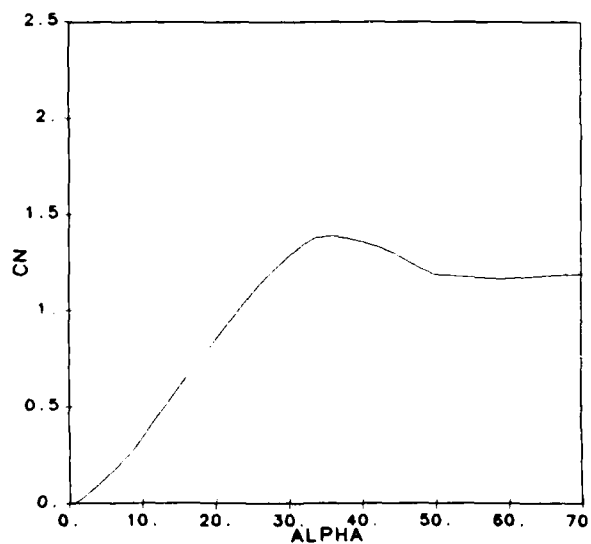
70 Deg. Delta
 ADF Wind Tunnel
 Velocity = 104.000 ft/s.

Red. Freq. = 0.0783
 Alpha Min. = 48 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	50.1544	1.1927	-0.0481	0.3233
0.0080	50.3799	1.2067	-0.0494	0.3271
0.0160	50.6956	1.2211	-0.0507	0.3306
0.0240	51.1135	1.2326	-0.0518	0.3337
0.0320	51.6353	1.2410	-0.0528	0.3363
0.0400	52.2548	1.2471	-0.0544	0.3390
0.0480	52.9594	1.2544	-0.0562	0.3419
0.0560	53.7396	1.2653	-0.0584	0.3448
0.0640	54.5727	1.2745	-0.0611	0.3478
0.0720	55.4253	1.2830	-0.0636	0.3505
0.0800	56.2734	1.2932	-0.0668	0.3526
0.0880	57.0971	1.2977	-0.0693	0.3534
0.0960	57.8926	1.2983	-0.0709	0.3535
0.1040	58.6597	1.2993	-0.0720	0.3535
0.1120	59.3827	1.2988	-0.0727	0.3533
0.1200	60.0425	1.2975	-0.0731	0.3530
0.1280	60.6303	1.2950	-0.0740	0.3528
0.1360	61.1462	1.2928	-0.0749	0.3525
0.1440	61.5988	1.2927	-0.0754	0.3518
0.1520	61.9944	1.2882	-0.0759	0.3509
0.1600	62.3239	1.2805	-0.0764	0.3503
0.1680	62.5782	1.2777	-0.0765	0.3499
0.1760	62.7560	1.2779	-0.0761	0.3491
0.1840	62.8561	1.2758	-0.0749	0.3479
0.1920	62.8773	1.2731	-0.0736	0.3461
0.2000	62.8175	1.2674	-0.0730	0.3440
0.2080	62.6684	1.2596	-0.0721	0.3417
0.2160	62.4233	1.2532	-0.0711	0.3395
0.2240	62.0722	1.2451	-0.0704	0.3374
0.2320	61.6032	1.2367	-0.0696	0.3353
0.2400	61.0191	1.2330	-0.0684	0.3329
0.2480	60.3360	1.2287	-0.0667	0.3299
0.2560	59.5735	1.2193	-0.0646	0.3267
0.2640	58.7522	1.2085	-0.0624	0.3233
0.2720	57.8944	1.1964	-0.0605	0.3197
0.2800	57.0169	1.1813	-0.0587	0.3161
0.2880	56.1328	1.1663	-0.0565	0.3127
0.2960	55.2602	1.1541	-0.0545	0.3096
0.3040	54.4213	1.1454	-0.0531	0.3068
0.3120	53.6330	1.1379	-0.0517	0.3042
0.3200	52.9079	1.1281	-0.0503	0.3019
0.3280	52.2572	1.1195	-0.0492	0.3005
0.3360	51.6919	1.1177	-0.0485	0.3001
0.3440	51.2172	1.1193	-0.0480	0.3002
0.3520	50.8298	1.1196	-0.0480	0.3009
0.3600	50.5173	1.1213	-0.0480	0.3020
0.3680	50.2713	1.1263	-0.0482	0.3033
0.3760	50.0859	1.1316	-0.0485	0.3047
0.3840	49.9594	1.1364	-0.0487	0.3066
0.3920	49.8928	1.1435	-0.0493	0.3091
0.4000	49.8818	1.1523	-0.0502	0.3121
0.4080	49.9237	1.1624	-0.0508	0.3156

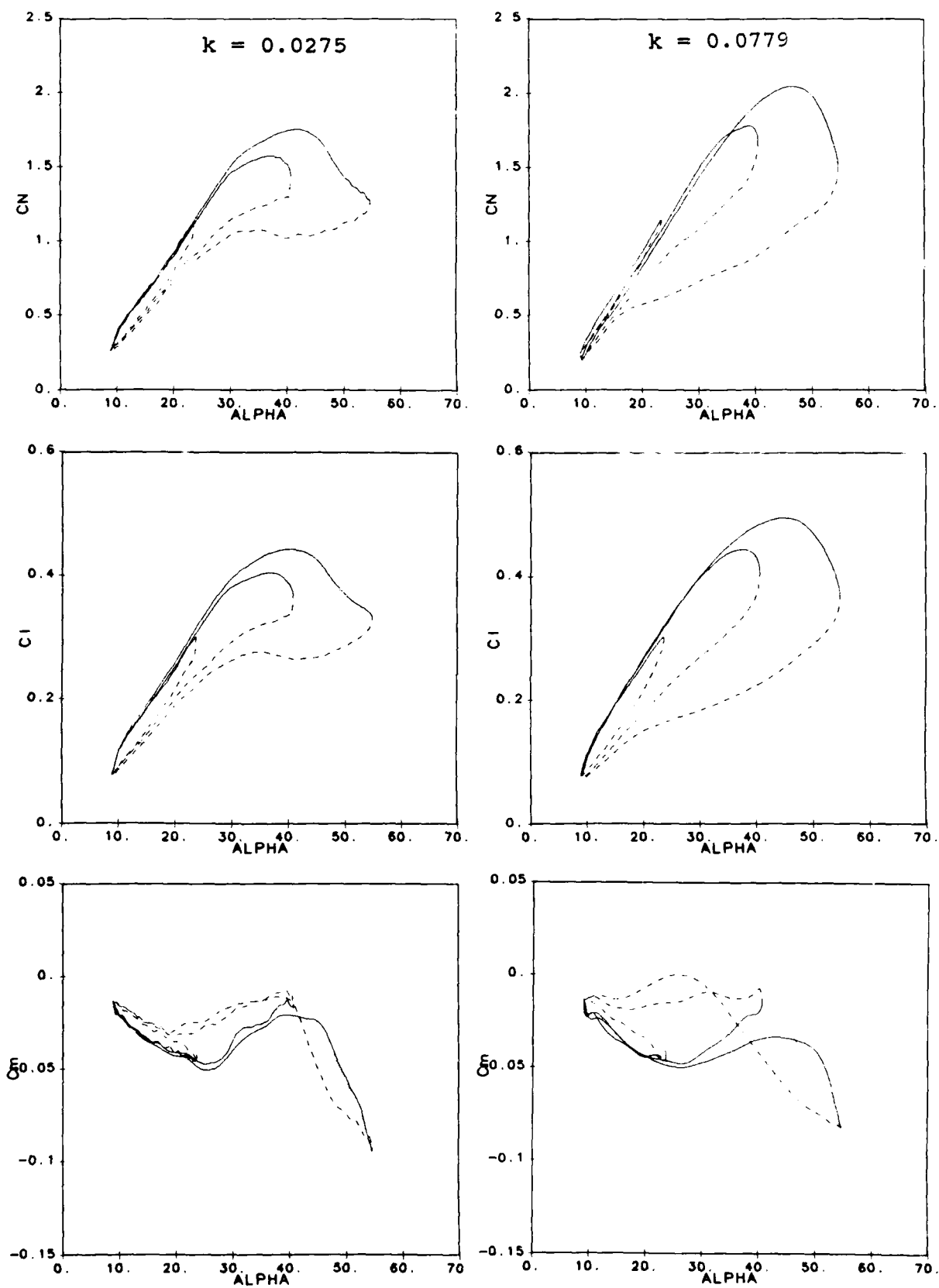
APPENDIX D

PLOTS AND LISTINGS OF THE ADF FORCE AND
MOMENT DATA FOR THE SEMI-SPAN $70^{\circ}/30^{\circ}$ CRANKED WING MODEL

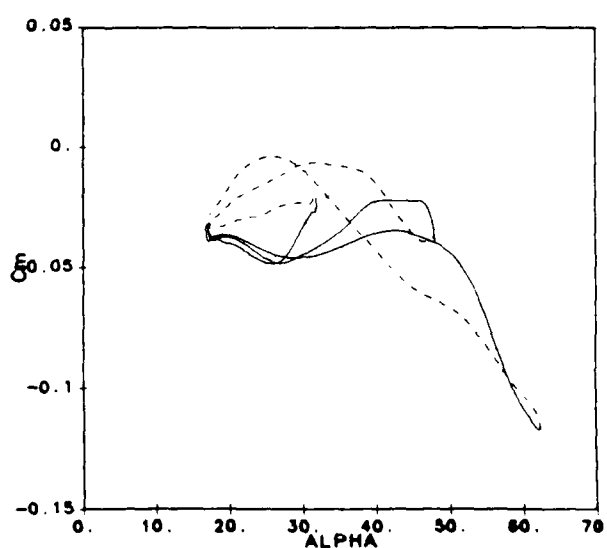
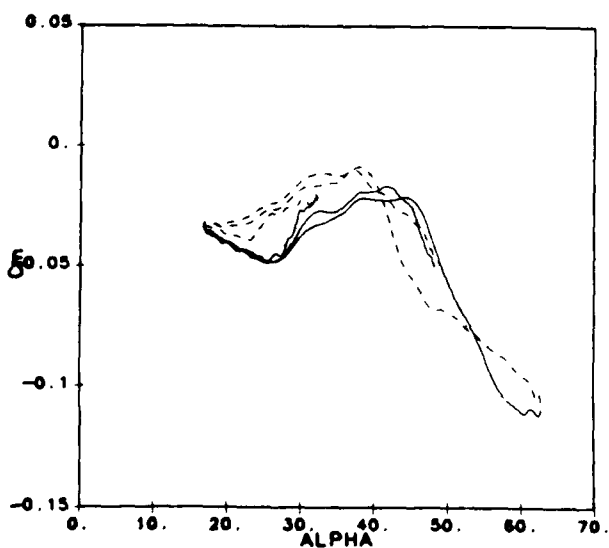
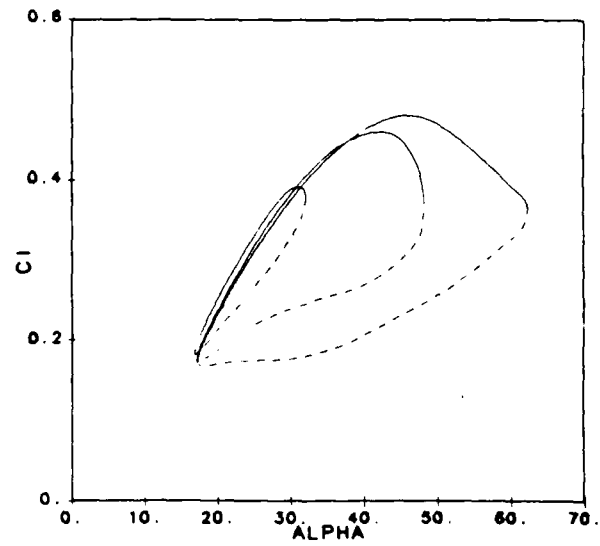
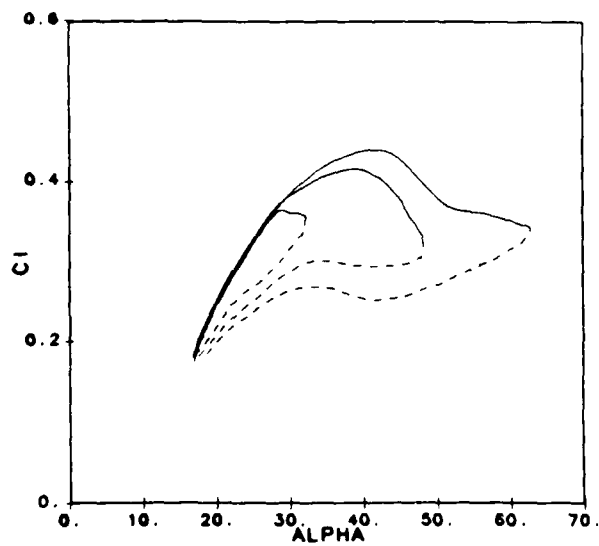
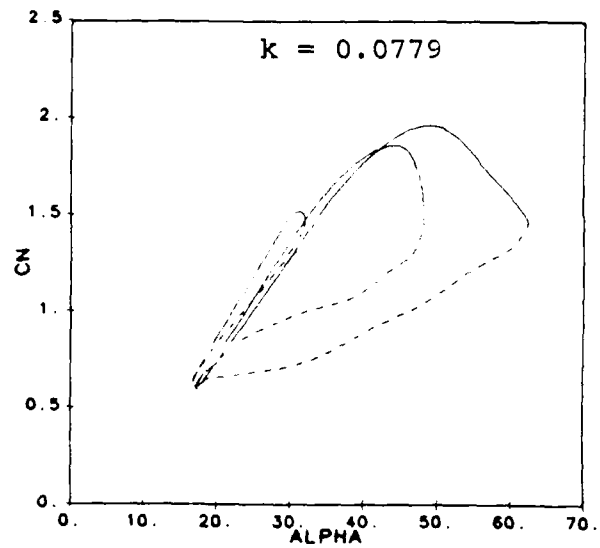
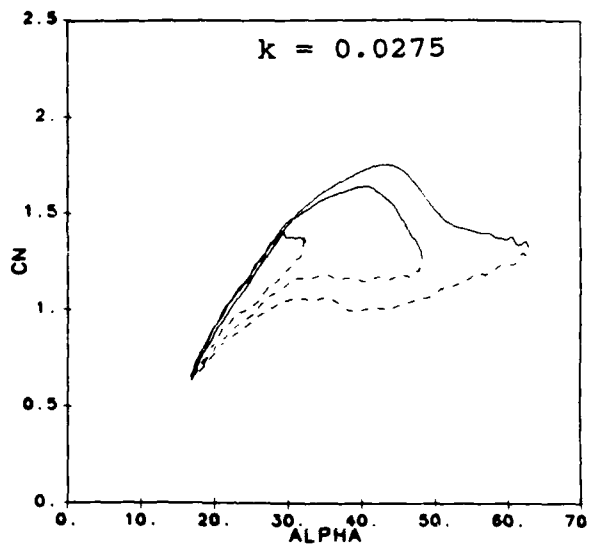


- o All Models Fabricated of 0.060" Aluminum Sheet
- o All Leading Edges Rounded, All Side and Trailing Edges Left Square

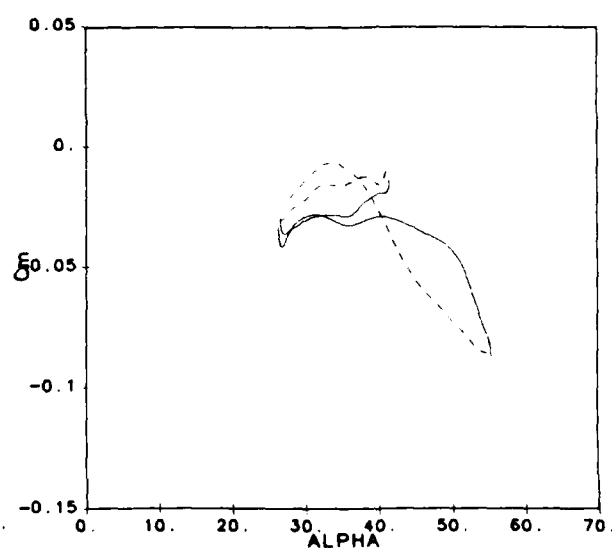
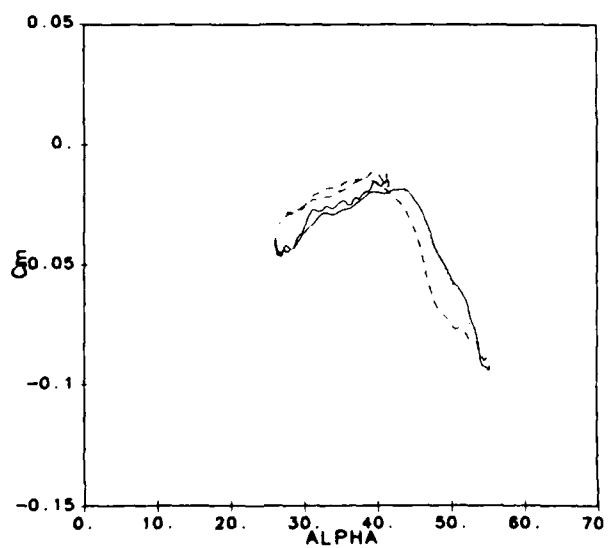
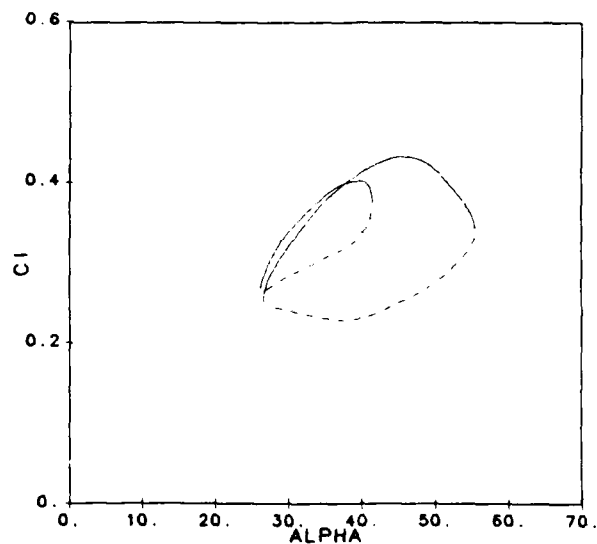
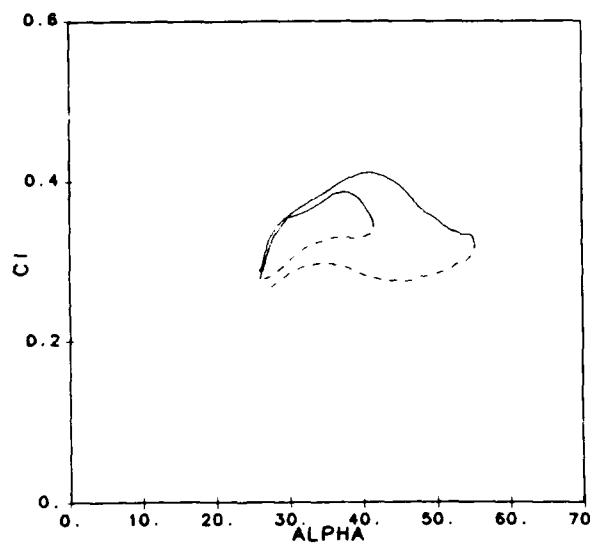
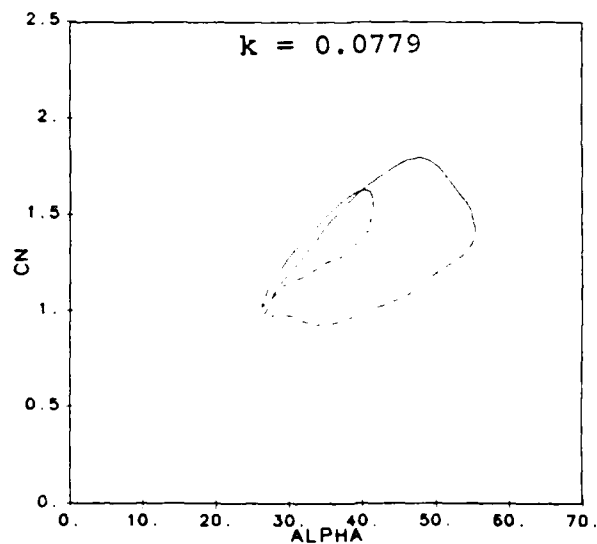
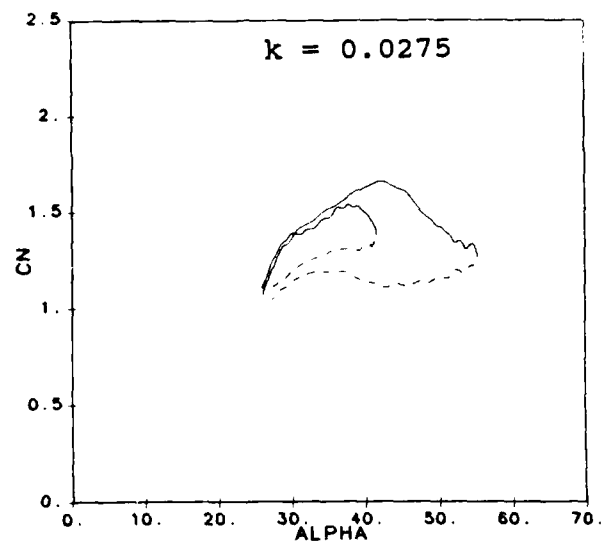
70°/30° Cranked Wing, Steady



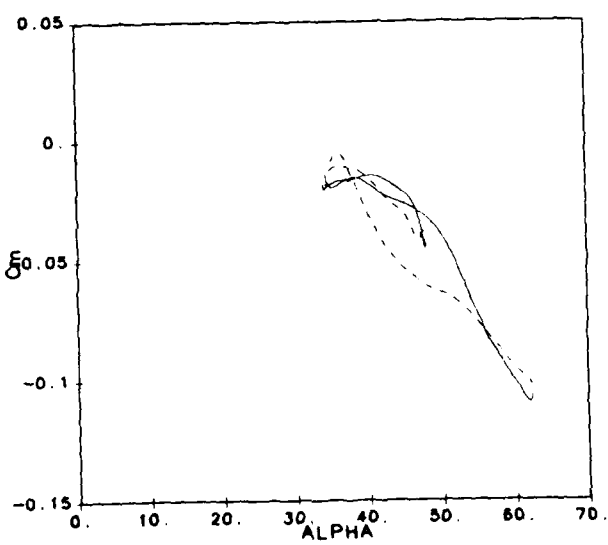
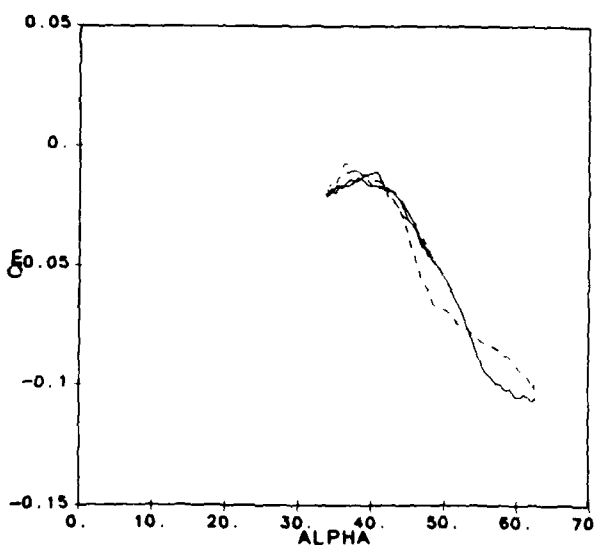
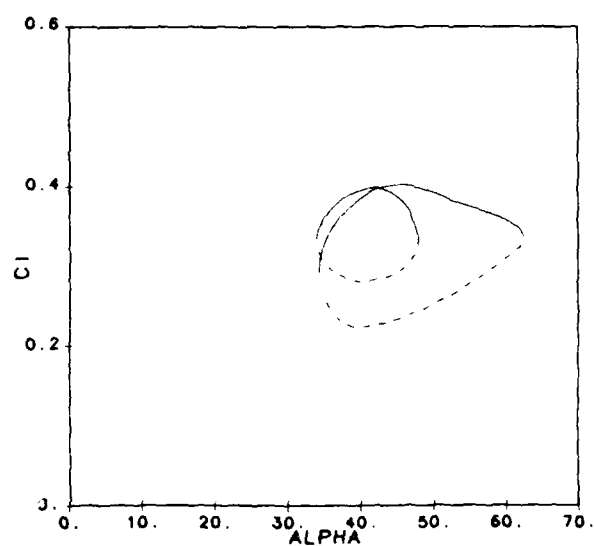
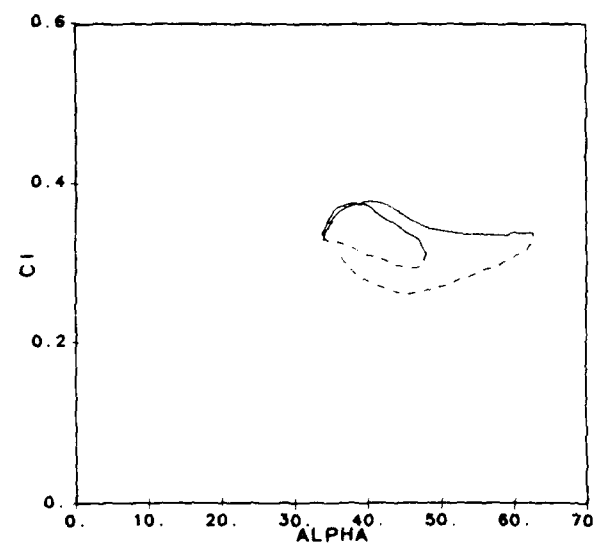
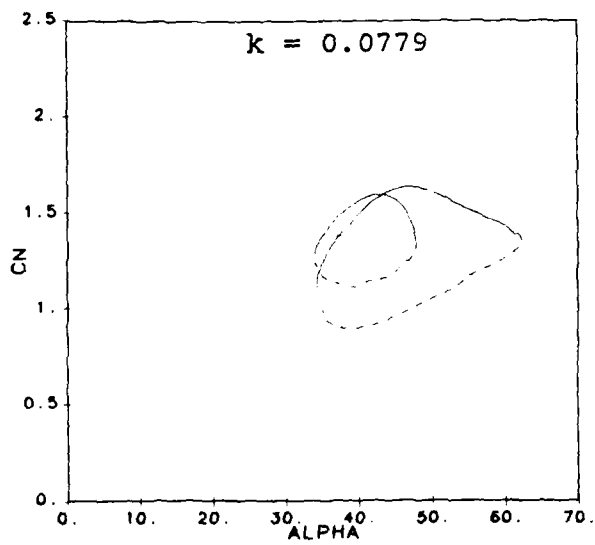
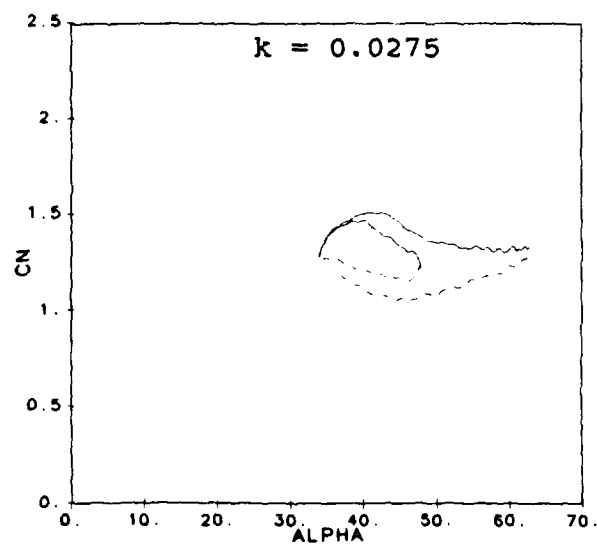
70°/30° Cranked Wing, Incidence = 8° to 56°



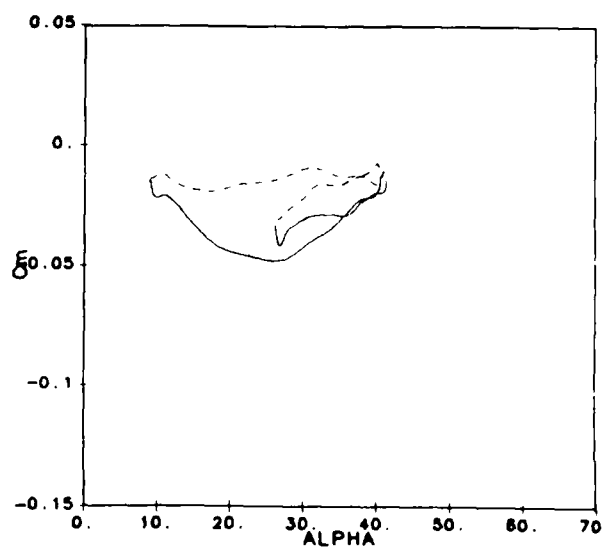
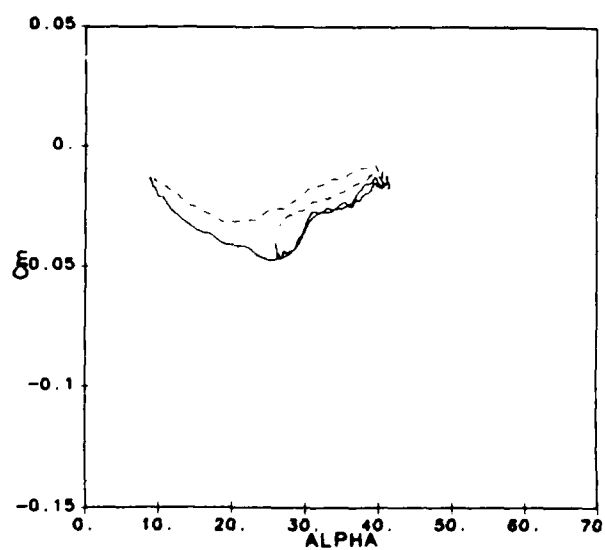
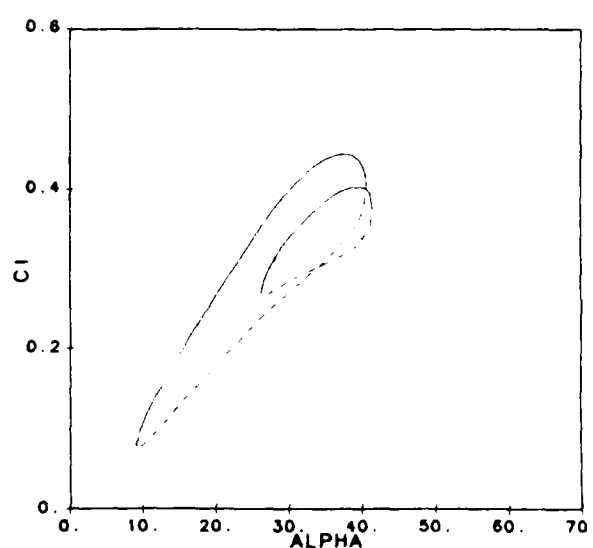
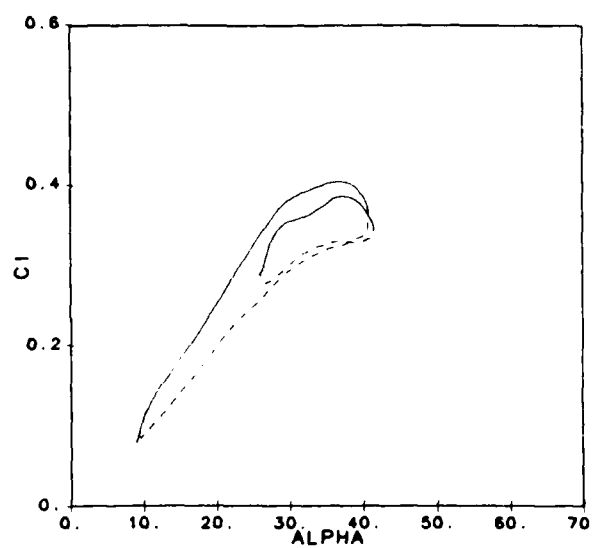
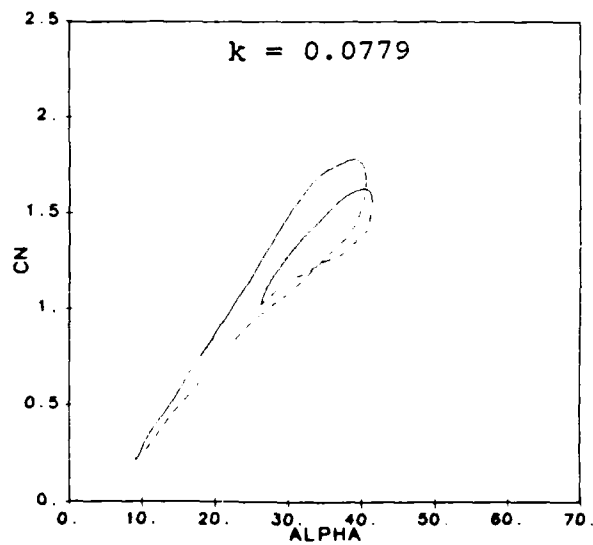
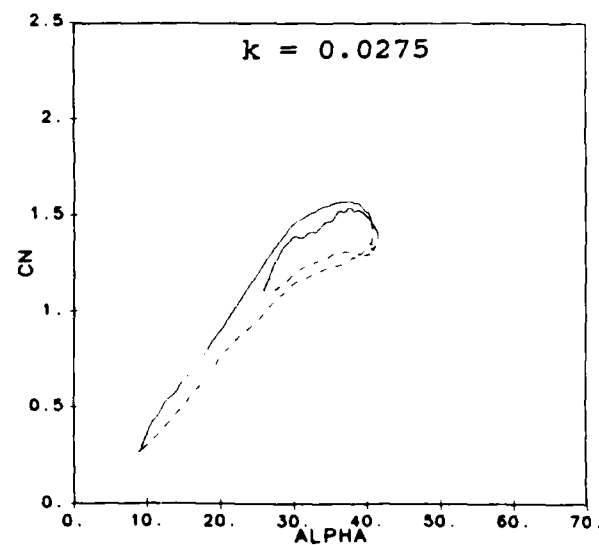
70°/30° Cranked Wing, Incidence = 16° to 64°



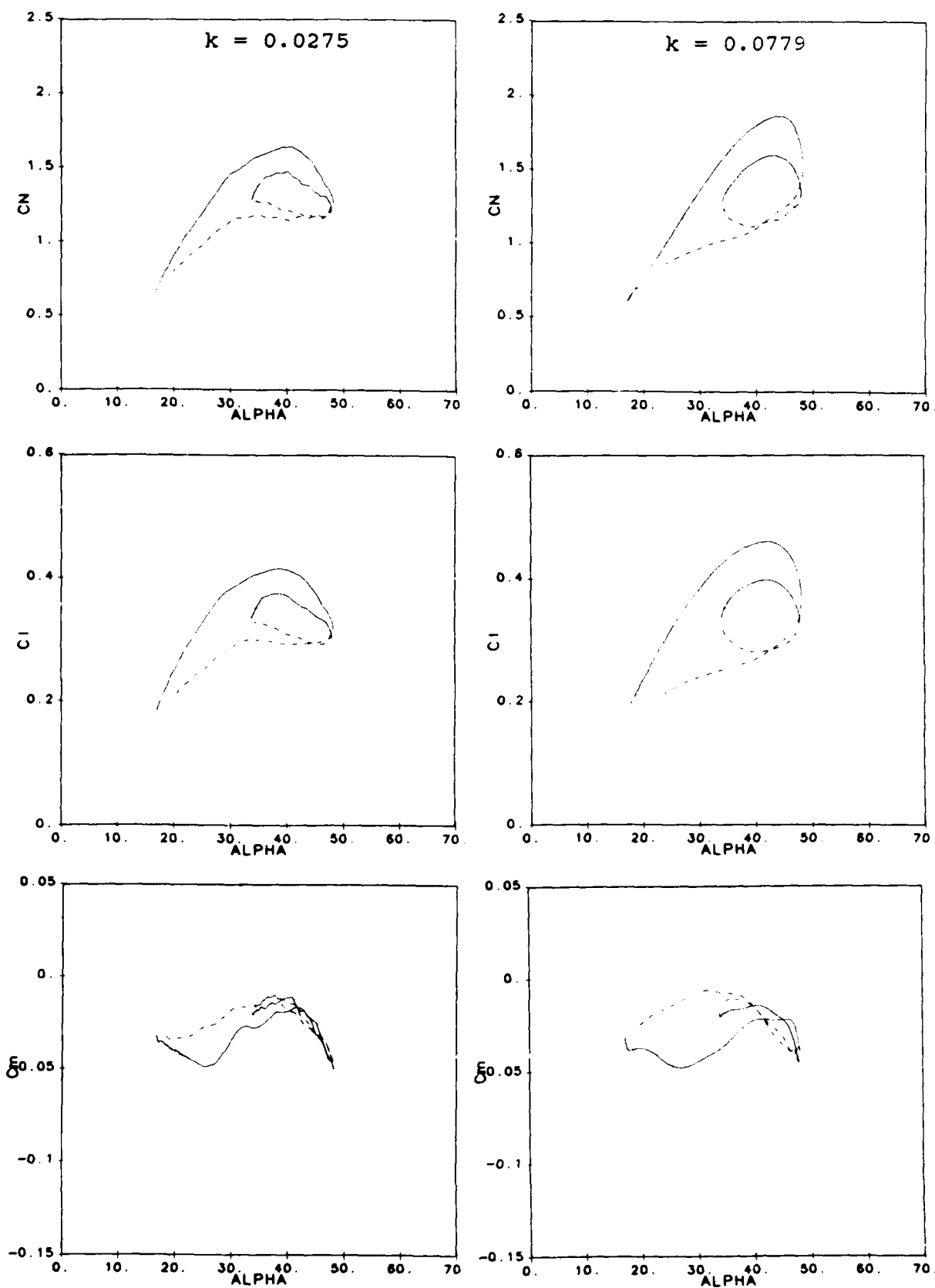
70°/30° Cranked Wing, Incidence = 24° to 56°



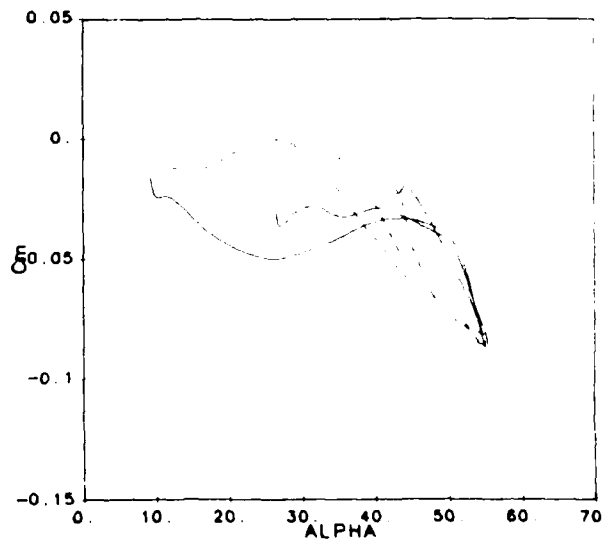
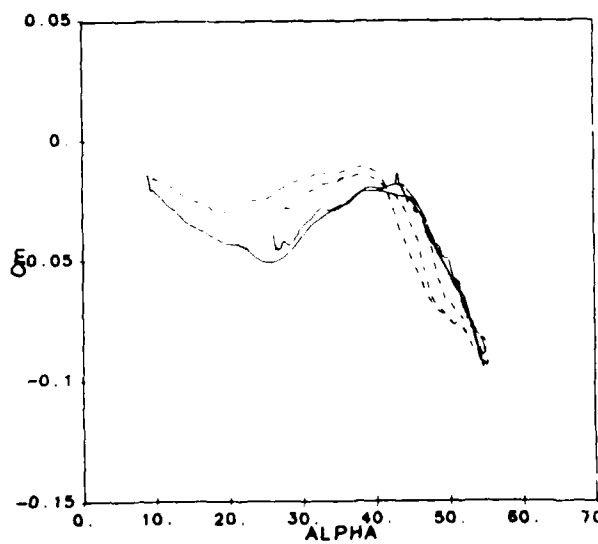
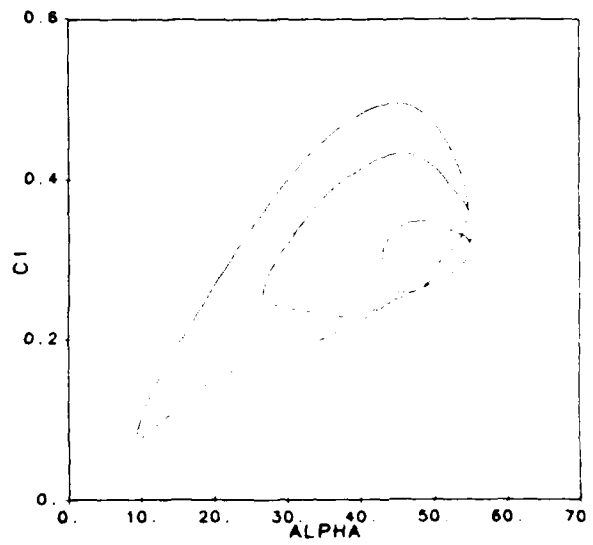
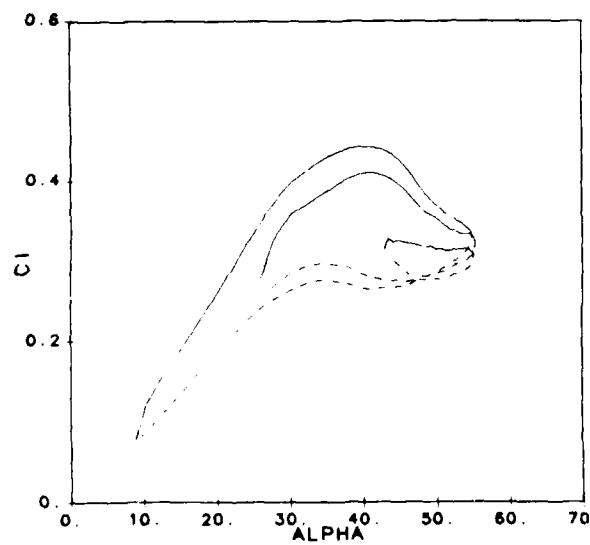
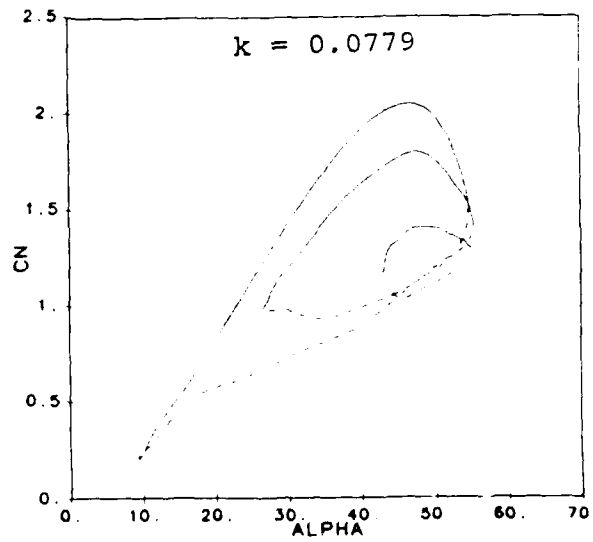
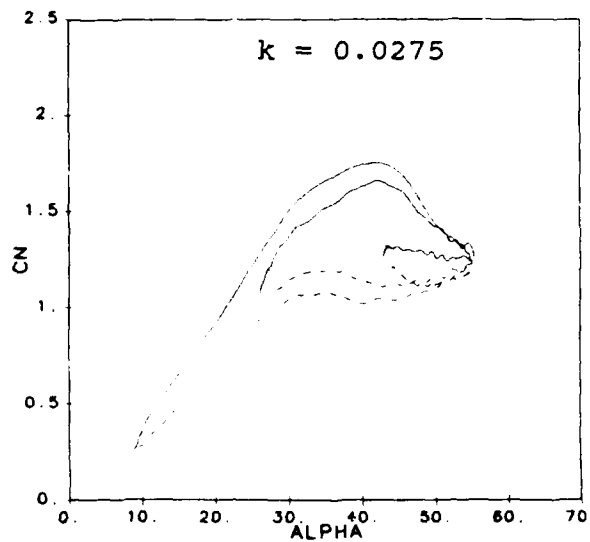
70°/30° Cranked Wing, Incidence = 32° to 64°



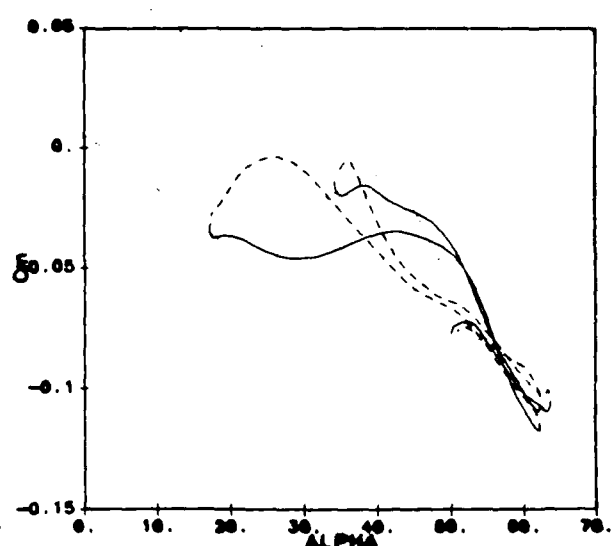
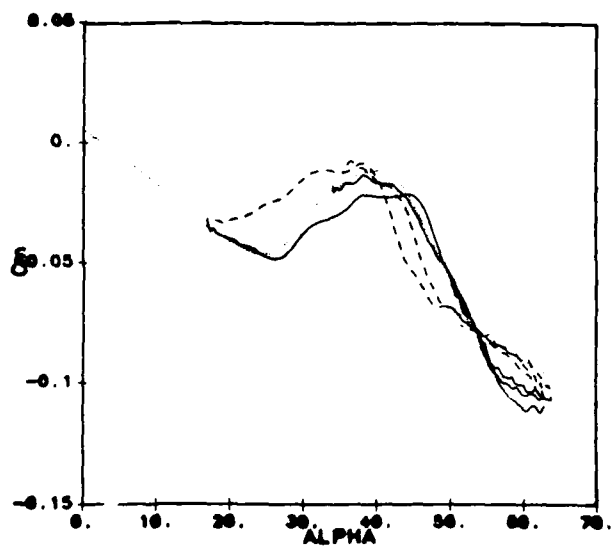
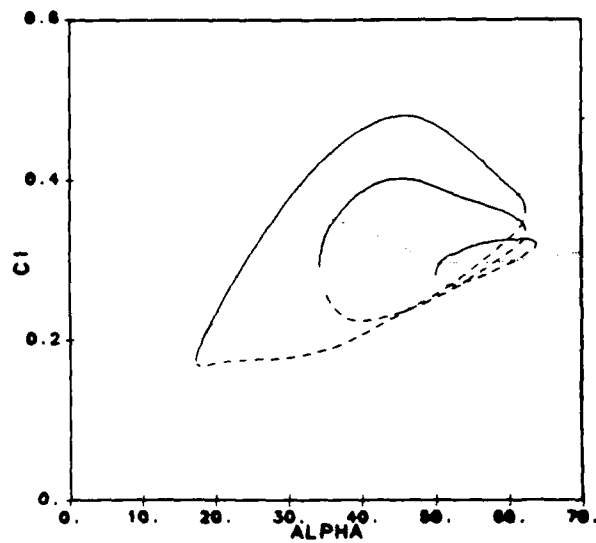
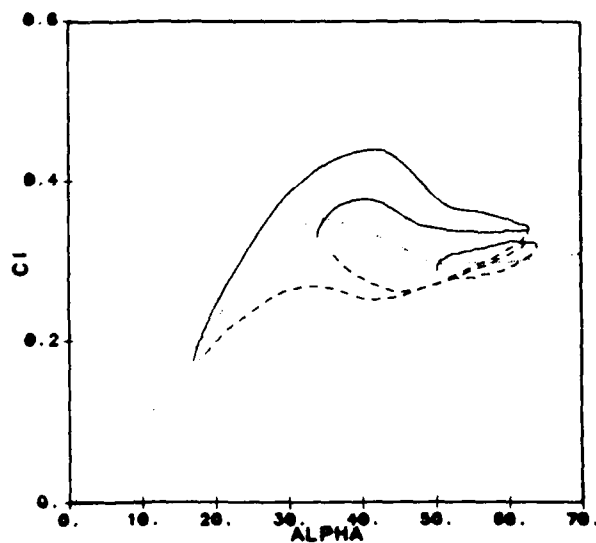
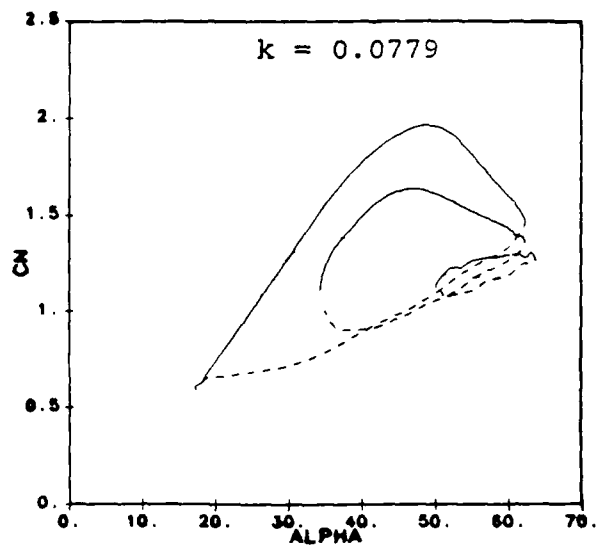
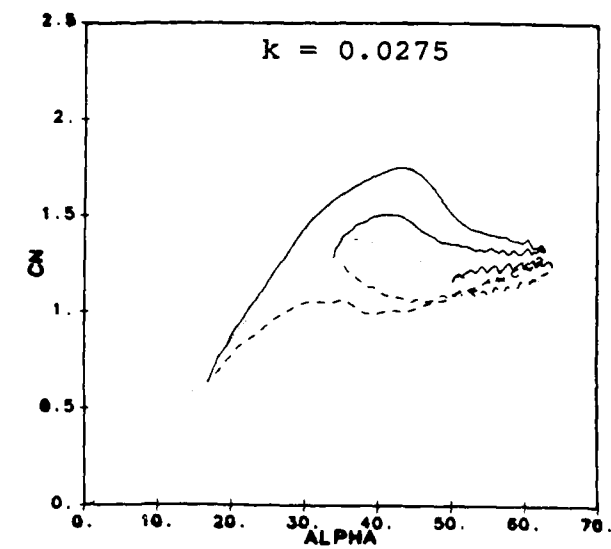
70°/30° Cranked Wing, Incidence = 8° to 40°



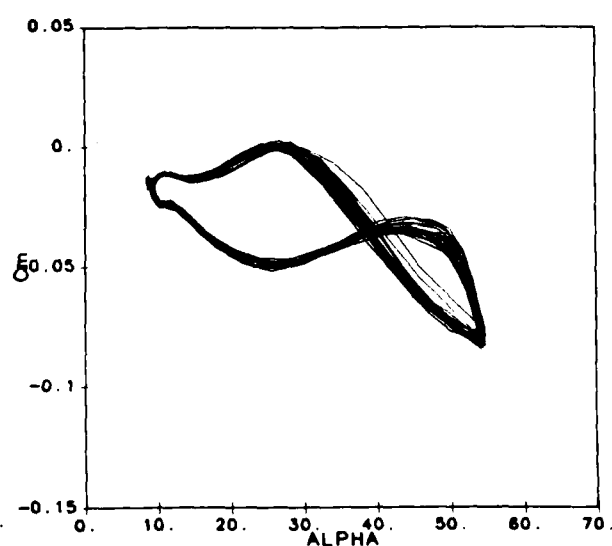
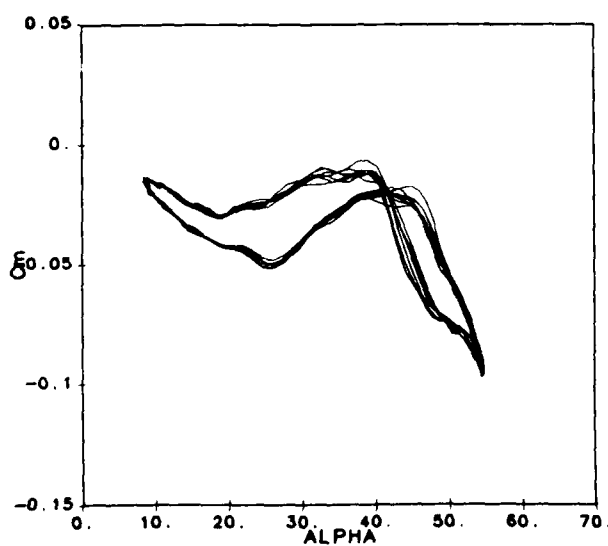
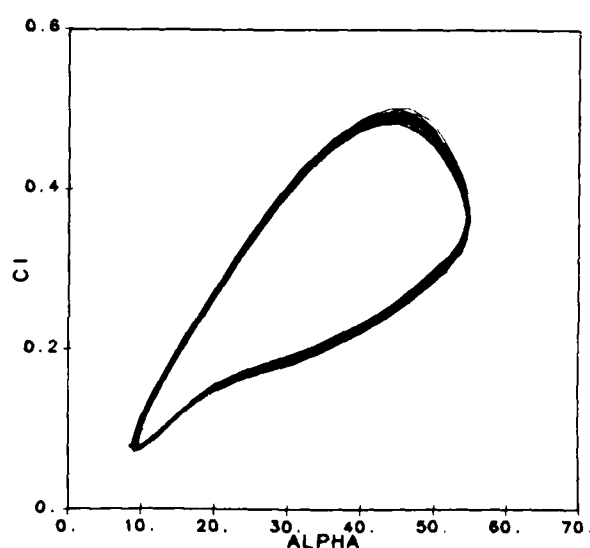
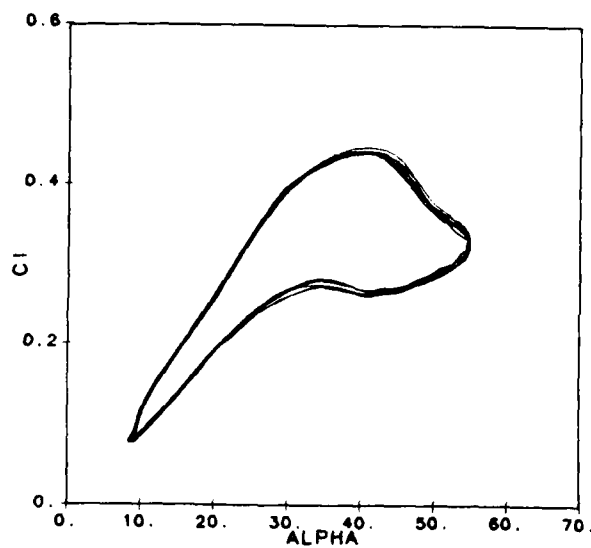
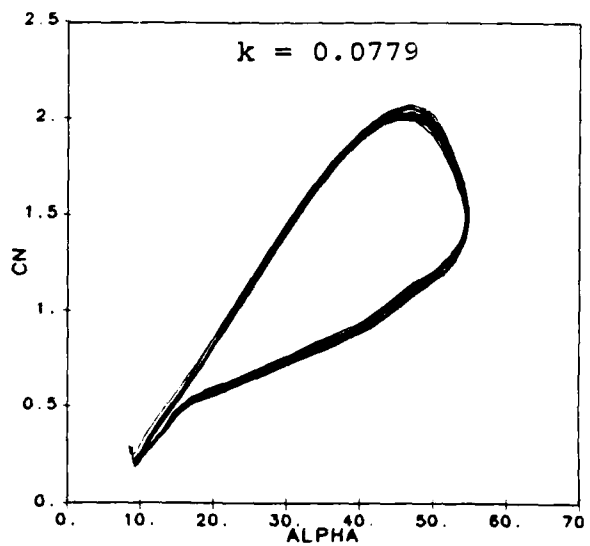
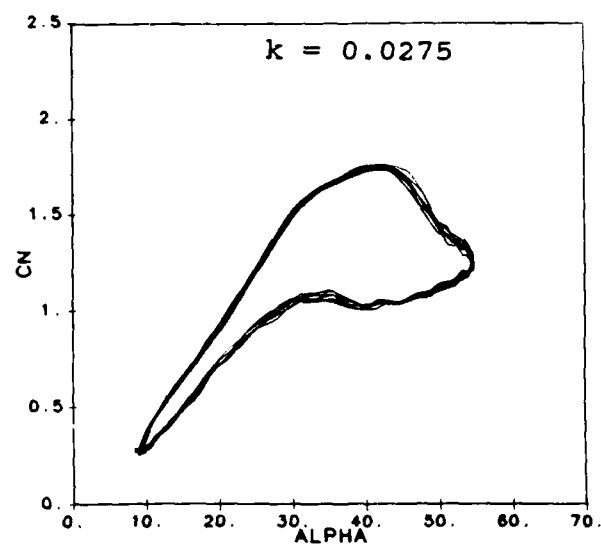
70°/30° Cranked Wing, Incidence = 16° to 48°



70°/30° Cranked Wing, Incidence = 8° to 56°



70°/30° Cranked Wing, Incidence = 16° to 64°



70°/30° Cranked Wing, Incidence = 8° to 56°

Cranked Wing Static Data
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0000
Alpha Min. = 0 deg.
Alpha Max. = 80 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.7331	0.2757	-0.0138	0.0774
0.0000	16.5976	0.6789	-0.0341	0.1843
0.0000	25.8976	1.1327	-0.0463	0.2894
0.0000	33.6458	1.3794	-0.0200	0.3532
0.0000	42.6104	1.3268	-0.0141	0.3289
0.0000	49.9965	1.1886	-0.0567	0.2959
0.0000	53.1600	1.1810	-0.0782	0.2966
0.0000	59.1437	1.1667	-0.0887	0.2980
0.0000	68.8012	1.1906	-0.1069	0.3087
0.0000	79.3247	1.2178	-0.1224	0.3182

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 8 deg.
 Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.9450	0.2669	-0.0140	0.0777
0.0180	8.9847	0.2628	-0.0142	0.0790
0.0360	9.0967	0.2691	-0.0151	0.0818
0.0540	9.2317	0.2826	-0.0160	0.0857
0.0720	9.3805	0.2952	-0.0164	0.0904
0.0900	9.5801	0.3146	-0.0179	0.0961
0.1080	9.7583	0.3404	-0.0195	0.1030
0.1260	9.9532	0.3666	-0.0202	0.1094
0.1440	10.2698	0.4028	-0.0219	0.1178
0.1620	10.7289	0.4294	-0.0222	0.1260
0.1800	11.3808	0.4662	-0.0256	0.1360
0.1980	12.1942	0.5095	-0.0277	0.1462
0.2160	12.9842	0.5346	-0.0287	0.1560
0.2340	13.8574	0.5896	-0.0310	0.1677
0.2520	14.7815	0.6189	-0.0328	0.1790
0.2700	15.6086	0.6727	-0.0350	0.1910
0.2880	16.4865	0.7160	-0.0353	0.2010
0.3060	17.3334	0.7595	-0.0368	0.2125
0.3240	18.3019	0.8161	-0.0385	0.2231
0.3420	19.0633	0.8401	-0.0381	0.2333
0.3600	19.7968	0.9079	-0.0411	0.2441
0.3780	20.4106	0.9234	-0.0404	0.2533
0.3960	20.8984	0.9752	-0.0427	0.2632
0.4140	21.5366	1.0133	-0.0427	0.2721
0.4320	21.9792	1.0347	-0.0427	0.2799
0.4500	22.4244	1.0640	-0.0440	0.2860
0.4680	22.8623	1.0865	-0.0440	0.2919
0.4860	23.2995	1.1072	-0.0456	0.2967
0.5040	23.5611	1.1076	-0.0449	0.3000
0.5220	23.6821	1.1266	-0.0449	0.3007
0.5400	23.7181	1.1248	-0.0442	0.3002
0.5580	23.6422	1.1207	-0.0428	0.2967
0.5760	23.6156	1.0996	-0.0417	0.2925
0.5940	23.6141	1.0813	-0.0428	0.2878
0.6120	23.5859	1.0497	-0.0432	0.2808
0.6300	23.4733	1.0277	-0.0443	0.2736
0.6480	23.1386	0.9946	-0.0424	0.2649
0.6660	22.5491	0.9601	-0.0409	0.2555
0.6840	21.8104	0.9085	-0.0382	0.2439
0.7020	21.1254	0.8693	-0.0367	0.2332
0.7200	20.4596	0.8199	-0.0356	0.2225
0.7380	19.7861	0.7782	-0.0353	0.2119
0.7560	19.0875	0.7298	-0.0339	0.2008
0.7740	18.2425	0.6884	-0.0329	0.1904
0.7920	17.3892	0.6515	-0.0309	0.1789
0.8100	16.5294	0.6026	-0.0295	0.1681
0.8280	15.7454	0.5761	-0.0289	0.1574
0.8460	14.9587	0.5153	-0.0268	0.1467
0.8640	14.1643	0.4887	-0.0259	0.1372
0.8820	13.4105	0.4472	-0.0235	0.1274
0.9000	12.6003	0.4155	-0.0219	0.1193
0.9180	11.9066	0.3867	-0.0204	0.1108
0.9360	11.2105	0.3490	-0.0187	0.1037
0.9540	10.6188	0.3300	-0.0177	0.0972
0.9720	10.1867	0.3059	-0.0159	0.0912
0.9900	9.8028	0.3012	-0.0152	0.0873
1.0080	9.4710	0.2788	-0.0143	0.0829
1.0260	9.2148	0.2756	-0.0142	0.0801
1.0440	9.0662	0.2726	-0.0139	0.0780
1.0620	8.9798	0.2666	-0.0139	0.0774

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 8 deg.
 Alpha Max. = 24 deg.

Time	Alpha	CN	Cm	Cl
0.0000	9.0240	0.2469	-0.0150	0.0792
0.0060	9.0628	0.2452	-0.0167	0.0815
0.0120	9.1442	0.2460	-0.0186	0.0851
0.0180	9.2636	0.2527	-0.0205	0.0897
0.0240	9.4204	0.2678	-0.0220	0.0952
0.0300	9.6176	0.2902	-0.0229	0.1013
0.0360	9.8599	0.3143	-0.0227	0.1076
0.0420	10.1598	0.3362	-0.0216	0.1142
0.0480	10.5407	0.3600	-0.0208	0.1220
0.0540	11.0252	0.3926	-0.0217	0.1314
0.0600	11.6192	0.4348	-0.0244	0.1421
0.0660	12.3086	0.4804	-0.0277	0.1534
0.0720	13.0705	0.5248	-0.0307	0.1647
0.0780	13.8820	0.5699	-0.0332	0.1762
0.0840	14.7204	0.6166	-0.0351	0.1878
0.0900	15.5659	0.6630	-0.0364	0.1990
0.0960	16.4066	0.7076	-0.0379	0.2100
0.1020	17.2347	0.7533	-0.0396	0.2211
0.1080	18.0410	0.8035	-0.0415	0.2321
0.1140	18.8107	0.8541	-0.0433	0.2427
0.1200	19.5248	0.8978	-0.0444	0.2523
0.1260	20.1703	0.9347	-0.0446	0.2611
0.1320	20.7457	0.9711	-0.0441	0.2692
0.1380	21.2607	1.0091	-0.0435	0.2764
0.1440	21.7291	1.0435	-0.0433	0.2827
0.1500	22.1598	1.0702	-0.0440	0.2882
0.1560	22.5499	1.0921	-0.0452	0.2932
0.1620	22.8887	1.1129	-0.0461	0.2974
0.1680	23.1668	1.1309	-0.0464	0.3002
0.1740	23.3802	1.1426	-0.0463	0.3019
0.1800	23.5262	1.1480	-0.0461	0.3026
0.1860	23.6035	1.1488	-0.0453	0.3024
0.1920	23.6223	1.1470	-0.0438	0.3010
0.1980	23.6051	1.1450	-0.0423	0.2987
0.2040	23.5694	1.1435	-0.0414	0.2956
0.2100	23.5142	1.1378	-0.0409	0.2916
0.2160	23.4221	1.1235	-0.0409	0.2868
0.2220	23.2682	1.1027	-0.0418	0.2816
0.2280	23.0266	1.0809	-0.0434	0.2755
0.2340	22.6789	1.0585	-0.0443	0.2677
0.2400	22.2236	1.0306	-0.0433	0.2576
0.2460	21.6783	0.9926	-0.0406	0.2458
0.2520	21.0683	0.9457	-0.0375	0.2335
0.2580	20.4101	0.8942	-0.0352	0.2215
0.2640	19.7066	0.8411	-0.0339	0.2100
0.2700	18.9555	0.7879	-0.0330	0.1986
0.2760	18.1625	0.7373	-0.0316	0.1871
0.2820	17.3468	0.6914	-0.0298	0.1756
0.2880	16.5318	0.6475	-0.0279	0.1642
0.2940	15.7359	0.6022	-0.0262	0.1531
0.3000	14.9645	0.5562	-0.0254	0.1430
0.3060	14.2097	0.5111	-0.0243	0.1335
0.3120	13.4692	0.4693	-0.0224	0.1245
0.3180	12.7566	0.4321	-0.0203	0.1161
0.3240	12.0923	0.3992	-0.0187	0.1085
0.3300	11.4899	0.3691	-0.0175	0.1016
0.3360	10.9541	0.3409	-0.0163	0.0956
0.3420	10.4864	0.3161	-0.0151	0.0905
0.3480	10.0879	0.2957	-0.0141	0.0863
0.3540	9.7598	0.2809	-0.0137	0.0831
0.3600	9.4995	0.2708	-0.0138	0.0807
0.3660	9.2998	0.2631	-0.0139	0.0790
0.3720	9.1561	0.2562	-0.0136	0.0779
0.3780	9.0693	0.2510	-0.0136	0.0777
0.3840	9.0408	0.2482	-0.0144	0.0785

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 8 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	9.0001	0.2662	-0.0131	0.0791
0.0180	9.0463	0.2656	-0.0142	0.0805
0.0360	9.1888	0.2723	-0.0154	0.0846
0.0540	9.3864	0.2907	-0.0172	0.0905
0.0720	9.6091	0.3135	-0.0177	0.0981
0.0900	9.8972	0.3462	-0.0197	0.1082
0.1080	10.3995	0.3953	-0.0211	0.1196
0.1260	11.2144	0.4396	-0.0238	0.1334
0.1440	12.2895	0.5085	-0.0276	0.1494
0.1620	13.6284	0.5637	-0.0312	0.1660
0.1800	15.0686	0.6359	-0.0344	0.1849
0.1980	16.6028	0.7127	-0.0362	0.2052
0.2160	18.2548	0.7994	-0.0394	0.2275
0.2340	19.8898	0.8890	-0.0411	0.2501
0.2520	21.4807	0.9828	-0.0417	0.2745
0.2700	23.2712	1.0888	-0.0447	0.3008
0.2880	25.1828	1.1981	-0.0475	0.3273
0.3060	26.9865	1.3028	-0.0463	0.3517
0.3240	28.6435	1.3929	-0.0424	0.3716
0.3420	30.2584	1.4625	-0.0333	0.3831
0.3600	31.9645	1.4994	-0.0277	0.3910
0.3780	33.6368	1.5367	-0.0271	0.3976
0.3960	35.1016	1.5541	-0.0259	0.4023
0.4140	36.2668	1.5676	-0.0238	0.4041
0.4320	37.2246	1.5694	-0.0194	0.4044
0.4500	38.1030	1.5654	-0.0162	0.4027
0.4680	38.9498	1.5599	-0.0154	0.3979
0.4860	39.6218	1.5314	-0.0129	0.3910
0.5040	40.1500	1.5180	-0.0160	0.3851
0.5220	40.5547	1.4852	-0.0164	0.3763
0.5400	40.7393	1.4407	-0.0151	0.3673
0.5580	40.7658	1.4050	-0.0169	0.3589
0.5760	40.6769	1.3752	-0.0159	0.3512
0.5940	40.5292	1.3357	-0.0108	0.3422
0.6120	40.4010	1.2996	-0.0110	0.3377
0.6300	40.2148	1.2964	-0.0119	0.3371
0.6480	39.7396	1.2932	-0.0086	0.3355
0.6660	38.8796	1.2864	-0.0086	0.3329
0.6840	37.8263	1.2690	-0.0090	0.3276
0.7020	36.6924	1.2453	-0.0103	0.3241
0.7200	35.4096	1.2325	-0.0130	0.3211
0.7380	33.9286	1.2154	-0.0136	0.3153
0.7560	32.2161	1.1813	-0.0162	0.3075
0.7740	30.4613	1.1509	-0.0179	0.2967
0.7920	28.8497	1.1006	-0.0220	0.2850
0.8100	27.1862	1.0433	-0.0258	0.2701
0.8280	25.4030	0.9630	-0.0262	0.2527
0.8460	23.5791	0.9001	-0.0304	0.2376
0.8640	21.7524	0.8330	-0.0308	0.2208
0.8820	20.1482	0.7652	-0.0316	0.2022
0.9000	18.6757	0.6785	-0.0313	0.1838
0.9180	17.1463	0.6057	-0.0283	0.1658
0.9360	15.7428	0.5397	-0.0260	0.1493
0.9540	14.4611	0.4822	-0.0249	0.1352
0.9720	13.2544	0.4315	-0.0220	0.1219
0.9900	12.1514	0.3862	-0.0192	0.1110
1.0080	11.1867	0.3415	-0.0170	0.1008
1.0260	10.4039	0.3092	-0.0153	0.0927
1.0440	9.8399	0.2941	-0.0149	0.0869
1.0620	9.3921	0.2736	-0.0135	0.0821
1.0800	9.1031	0.2744	-0.0136	0.0800
1.0980	8.9849	0.2691	-0.0132	0.0792

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 8 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	9.1717	0.2199	-0.0145	0.0775
0.0060	9.2291	0.2203	-0.0161	0.0814
0.0120	9.3629	0.2238	-0.0183	0.0871
0.0180	9.5823	0.2355	-0.0204	0.0947
0.0240	9.9116	0.2630	-0.0216	0.1042
0.0300	10.3844	0.3051	-0.0214	0.1151
0.0360	11.0357	0.3525	-0.0209	0.1271
0.0420	11.8877	0.3995	-0.0220	0.1415
0.0480	12.9363	0.4516	-0.0253	0.1590
0.0540	14.1557	0.5188	-0.0296	0.1792
0.0600	15.5175	0.6021	-0.0342	0.2008
0.0660	16.9993	0.6933	-0.0385	0.2230
0.0720	18.5802	0.7866	-0.0421	0.2458
0.0780	20.2358	0.8831	-0.0442	0.2693
0.0840	21.9420	0.9846	-0.0454	0.2935
0.0900	23.6739	1.0888	-0.0465	0.3180
0.0960	25.4022	1.1950	-0.0477	0.3423
0.1020	27.0987	1.3040	-0.0476	0.3650
0.1080	28.7481	1.4111	-0.0451	0.3849
0.1140	30.3511	1.5088	-0.0414	0.4017
0.1200	31.9026	1.5931	-0.0382	0.4160
0.1260	33.3699	1.6606	-0.0354	0.4274
0.1320	34.7050	1.7082	-0.0320	0.4356
0.1380	35.8749	1.7367	-0.0282	0.4406
0.1440	36.8789	1.7537	-0.0248	0.4431
0.1500	37.7404	1.7672	-0.0226	0.4436
0.1560	38.4851	1.7781	-0.0217	0.4424
0.1620	39.1240	1.7805	-0.0213	0.4396
0.1680	39.6522	1.7723	-0.0209	0.4357
0.1740	40.0588	1.7558	-0.0197	0.4306
0.1800	40.3432	1.7330	-0.0181	0.4243
0.1860	40.5168	1.7066	-0.0168	0.4174
0.1920	40.5918	1.6798	-0.0156	0.4099
0.1980	40.5774	1.6526	-0.0135	0.4013
0.2040	40.4818	1.6224	-0.0106	0.3918
0.2100	40.3042	1.5858	-0.0080	0.3816
0.2160	40.0244	1.5401	-0.0073	0.3716
0.2220	39.6016	1.4874	-0.0088	0.3620
0.2280	38.9941	1.4349	-0.0108	0.3525
0.2340	38.1861	1.3883	-0.0119	0.3424
0.2400	37.1930	1.3469	-0.0125	0.3315
0.2460	36.0382	1.3050	-0.0129	0.3202
0.2520	34.7336	1.2569	-0.0124	0.3084
0.2580	33.2881	1.2016	-0.0108	0.2961
0.2640	31.7233	1.1427	-0.0094	0.2834
0.2700	30.0744	1.0862	-0.0096	0.2706
0.2760	28.3766	1.0348	-0.0117	0.2576
0.2820	26.6567	0.9848	-0.0139	0.2434
0.2880	24.9385	0.9288	-0.0151	0.2278
0.2940	23.2467	0.8627	-0.0153	0.2113
0.3000	21.6030	0.7901	-0.0159	0.1950
0.3060	20.0193	0.7172	-0.0172	0.1794
0.3120	18.5008	0.6475	-0.0184	0.1646
0.3180	17.0585	0.5821	-0.0188	0.1501
0.3240	15.7136	0.5220	-0.0185	0.1363
0.3300	14.4875	0.4678	-0.0179	0.1236
0.3360	13.3884	0.4165	-0.0168	0.1119
0.3420	12.4164	0.3666	-0.0150	0.1015
0.3480	11.5720	0.3198	-0.0132	0.0927
0.3540	10.8603	0.2818	-0.0122	0.0858
0.3600	10.2846	0.2570	-0.0123	0.0811
0.3660	9.8411	0.2436	-0.0130	0.0778
0.3720	9.5200	0.2351	-0.0135	0.0756
0.3780	9.3108	0.2274	-0.0137	0.0747
0.3840	9.2036	0.2216	-0.0140	0.0755
0.3900	9.1877	0.2199	-0.0148	0.0780

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 8 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	8.9827	0.2626	-0.0139	0.0780
0.0180	9.0952	0.2680	-0.0160	0.0820
0.0360	9.3432	0.2837	-0.0191	0.0895
0.0540	9.6519	0.3202	-0.0204	0.1002
0.0720	10.0549	0.3545	-0.0214	0.1129
0.0900	10.7961	0.4242	-0.0236	0.1291
0.1080	12.0640	0.4941	-0.0278	0.1490
0.1260	13.7065	0.5828	-0.0321	0.1718
0.1440	15.6345	0.6779	-0.0362	0.1972
0.1620	17.6960	0.7859	-0.0398	0.2260
0.1800	19.8841	0.9086	-0.0429	0.2568
0.1980	22.1778	1.0387	-0.0445	0.2918
0.2160	24.7722	1.2019	-0.0504	0.3311
0.2340	27.3785	1.3528	-0.0488	0.3670
0.2520	29.9701	1.4960	-0.0402	0.3956
0.2700	32.8051	1.6038	-0.0320	0.4166
0.2880	35.5098	1.6643	-0.0276	0.4315
0.3060	37.8987	1.7127	-0.0221	0.4397
0.3240	40.3284	1.7437	-0.0212	0.4427
0.3420	42.7469	1.7483	-0.0229	0.4387
0.3600	44.9222	1.7071	-0.0241	0.4259
0.3780	46.7995	1.6293	-0.0321	0.4053
0.3960	48.3954	1.5317	-0.0447	0.3854
0.4140	49.7510	1.4532	-0.0532	0.3716
0.4320	50.8957	1.4081	-0.0607	0.3625
0.4500	51.9425	1.3658	-0.0663	0.3552
0.4680	52.8795	1.3369	-0.0736	0.3497
0.4860	53.6374	1.3277	-0.0838	0.3455
0.5040	54.2087	1.2936	-0.0894	0.3407
0.5220	54.4694	1.2814	-0.0917	0.3382
0.5400	54.6472	1.2779	-0.0945	0.3353
0.5580	54.7238	1.2642	-0.0935	0.3307
0.5760	54.6640	1.2458	-0.0917	0.3263
0.5940	54.4891	1.2329	-0.0892	0.3206
0.6120	54.2292	1.2084	-0.0868	0.3139
0.6300	53.6704	1.1859	-0.0877	0.3103
0.6480	52.7155	1.1698	-0.0828	0.3015
0.6660	51.4337	1.1345	-0.0774	0.2941
0.6840	50.1413	1.1215	-0.0745	0.2878
0.7020	48.6809	1.0823	-0.0714	0.2812
0.7200	46.9259	1.0712	-0.0631	0.2738
0.7380	45.0448	1.0423	-0.0497	0.2684
0.7560	42.9461	1.0421	-0.0325	0.2670
0.7740	40.5868	1.0232	-0.0143	0.2653
0.7920	38.0945	1.0439	-0.0113	0.2710
0.8100	35.6569	1.0749	-0.0130	0.2762
0.8280	32.9852	1.0670	-0.0138	0.2746
0.8460	30.3194	1.0453	-0.0157	0.2646
0.8640	27.7937	0.9771	-0.0190	0.2524
0.8820	25.2193	0.9125	-0.0243	0.2346
0.9000	22.7436	0.8164	-0.0249	0.2129
0.9180	20.4456	0.7321	-0.0276	0.1934
0.9360	18.4558	0.6501	-0.0300	0.1722
0.9540	16.5439	0.5483	-0.0262	0.1510
0.9720	14.8519	0.4805	-0.0249	0.1326
0.9900	13.3319	0.4134	-0.0213	0.1173
1.0080	11.9443	0.3596	-0.0190	0.1041
1.0260	10.8522	0.3087	-0.0164	0.0923
1.0440	10.0558	0.2854	-0.0159	0.0853
1.0620	9.4681	0.2618	-0.0149	0.0796
1.0800	9.1244	0.2603	-0.0145	0.0774
1.0980	9.0063	0.2594	-0.0139	0.0777

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 8 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	9.3148	0.2018	-0.0157	0.0784
0.0060	9.4361	0.2041	-0.0182	0.0848
0.0120	9.6891	0.2162	-0.0215	0.0938
0.0180	10.1060	0.2434	-0.0240	0.1054
0.0240	10.7354	0.2900	-0.0243	0.1194
0.0300	11.6341	0.3523	-0.0239	0.1358
0.0360	12.8399	0.4222	-0.0258	0.1559
0.0420	14.3418	0.4968	-0.0305	0.1803
0.0480	16.0934	0.5854	-0.0358	0.2084
0.0540	18.0526	0.6987	-0.0406	0.2392
0.0600	20.1951	0.8323	-0.0445	0.2713
0.0660	22.5068	0.9757	-0.0476	0.3042
0.0720	24.9621	1.1258	-0.0497	0.3377
0.0780	27.5152	1.2815	-0.0495	0.3706
0.0840	30.1139	1.4342	-0.0473	0.4010
0.0900	32.7115	1.5769	-0.0444	0.4282
0.0960	35.2627	1.7088	-0.0412	0.4512
0.1020	37.7268	1.8249	-0.0376	0.4691
0.1080	40.0752	1.9169	-0.0346	0.4820
0.1140	42.2807	1.9827	-0.0334	0.4904
0.1200	44.3117	2.0240	-0.0335	0.4943
0.1260	46.1422	2.0424	-0.0346	0.4935
0.1320	47.7585	2.0392	-0.0362	0.4882
0.1380	49.1637	2.0143	-0.0380	0.4788
0.1440	50.3750	1.9688	-0.0415	0.4666
0.1500	51.4087	1.9080	-0.0467	0.4531
0.1560	52.2779	1.8387	-0.0534	0.4392
0.1620	52.9954	1.7684	-0.0609	0.4260
0.1680	53.5727	1.7045	-0.0680	0.4138
0.1740	54.0218	1.6479	-0.0736	0.4024
0.1800	54.3553	1.5955	-0.0779	0.3919
0.1860	54.5787	1.5470	-0.0805	0.3820
0.1920	54.6963	1.5043	-0.0815	0.3722
0.1980	54.7124	1.4678	-0.0818	0.3625
0.2040	54.6188	1.4334	-0.0817	0.3527
0.2100	54.3910	1.3954	-0.0810	0.3425
0.2160	53.9935	1.3508	-0.0806	0.3326
0.2220	53.3813	1.3020	-0.0804	0.3229
0.2280	52.5191	1.2541	-0.0788	0.3128
0.2340	51.4092	1.2128	-0.0762	0.3020
0.2400	50.0800	1.1786	-0.0737	0.2909
0.2460	48.5527	1.1431	-0.0709	0.2789
0.2520	46.8327	1.0959	-0.0663	0.2659
0.2580	44.9214	1.0359	-0.0601	0.2525
0.2640	42.8282	0.9706	-0.0525	0.2393
0.2700	40.5802	0.9095	-0.0438	0.2269
0.2760	38.2236	0.8598	-0.0345	0.2157
0.2820	35.8100	0.8207	-0.0248	0.2054
0.2880	33.3811	0.7850	-0.0151	0.1957
0.2940	30.9620	0.7464	-0.0071	0.1869
0.3000	28.5577	0.7032	-0.0021	0.1791
0.3060	26.1689	0.6596	-0.0001	0.1720
0.3120	23.8180	0.6221	-0.0010	0.1647
0.3180	21.5572	0.5934	-0.0041	0.1565
0.3240	19.4509	0.5689	-0.0080	0.1466
0.3300	17.5491	0.5382	-0.0112	0.1351
0.3360	15.8704	0.4936	-0.0131	0.1229
0.3420	14.4015	0.4358	-0.0135	0.1110
0.3480	13.1179	0.3719	-0.0125	0.1002
0.3540	12.0129	0.3155	-0.0115	0.0911
0.3600	11.0981	0.2773	-0.0115	0.0842
0.3660	10.3853	0.2567	-0.0124	0.0793
0.3720	9.8730	0.2435	-0.0132	0.0757
0.3780	9.5455	0.2287	-0.0139	0.0738
0.3840	9.3774	0.2135	-0.0145	0.0742
0.3900	9.3429	0.2038	-0.0155	0.0771

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.8454	0.6546	-0.0328	0.1820
0.0180	16.8921	0.6568	-0.0335	0.1835
0.0360	17.0822	0.6655	-0.0355	0.1872
0.0540	17.2594	0.6793	-0.0360	0.1912
0.0720	17.3649	0.6976	-0.0355	0.1955
0.0900	17.5061	0.7155	-0.0359	0.2006
0.1080	17.7269	0.7387	-0.0368	0.2073
0.1260	18.1247	0.7776	-0.0374	0.2156
0.1440	18.5923	0.8029	-0.0379	0.2242
0.1620	19.1292	0.8453	-0.0402	0.2340
0.1800	19.7448	0.8925	-0.0401	0.2450
0.1980	20.3581	0.9273	-0.0412	0.2570
0.2160	21.1339	0.9885	-0.0436	0.2706
0.2340	21.9761	1.0278	-0.0434	0.2830
0.2520	22.8356	1.0810	-0.0450	0.2956
0.2700	23.9204	1.1327	-0.0464	0.3083
0.2880	24.8265	1.1719	-0.0468	0.3211
0.3060	25.8180	1.2436	-0.0476	0.3327
0.3240	26.6308	1.2637	-0.0447	0.3437
0.3420	27.4178	1.3356	-0.0453	0.3537
0.3600	28.1480	1.3492	-0.0396	0.3601
0.3780	28.7751	1.3881	-0.0378	0.3640
0.3960	29.5016	1.3930	-0.0304	0.3630
0.4140	29.9897	1.3729	-0.0267	0.3609
0.4320	30.5663	1.3772	-0.0266	0.3603
0.4500	31.1262	1.3681	-0.0251	0.3601
0.4680	31.5396	1.3750	-0.0241	0.3590
0.4860	31.8646	1.3673	-0.0224	0.3581
0.5040	32.0665	1.3703	-0.0219	0.3580
0.5220	32.1951	1.3689	-0.0218	0.3566
0.5400	32.2325	1.3646	-0.0216	0.3551
0.5580	32.1846	1.3553	-0.0205	0.3533
0.5760	32.1078	1.3467	-0.0200	0.3498
0.5940	32.0477	1.3321	-0.0204	0.3458
0.6120	31.9793	1.3111	-0.0214	0.3415
0.6300	31.8603	1.2943	-0.0221	0.3370
0.6480	31.5581	1.2695	-0.0230	0.3323
0.6660	31.0385	1.2578	-0.0240	0.3265
0.6840	30.3572	1.2219	-0.0218	0.3188
0.7020	29.6616	1.1981	-0.0243	0.3113
0.7200	29.0471	1.1746	-0.0253	0.3034
0.7380	28.3114	1.1408	-0.0256	0.2960
0.7560	27.4912	1.1177	-0.0274	0.2884
0.7740	26.6608	1.0784	-0.0285	0.2795
0.7920	25.7129	1.0326	-0.0290	0.2717
0.8100	24.8051	1.0136	-0.0329	0.2666
0.8280	23.8707	0.9889	-0.0367	0.2611
0.8460	22.9598	0.9749	-0.0391	0.2537
0.8640	22.0253	0.9258	-0.0381	0.2440
0.8820	21.1790	0.8965	-0.0377	0.2340
0.9000	20.5078	0.8457	-0.0363	0.2242
0.9180	19.8818	0.8140	-0.0367	0.2164
0.9360	19.3845	0.7810	-0.0357	0.2085
0.9540	18.8282	0.7447	-0.0348	0.2018
0.9720	18.3223	0.7169	-0.0347	0.1956
0.9900	17.8992	0.6966	-0.0340	0.1910
1.0080	17.5223	0.6836	-0.0337	0.1876
1.0260	17.2613	0.6726	-0.0336	0.1850
1.0440	17.0387	0.6622	-0.0330	0.1832
1.0620	16.8776	0.6606	-0.0332	0.1824

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 16 deg.
 Alpha Max. = 32 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.8806	0.6337	-0.0335	0.1836
0.0060	16.9223	0.6386	-0.0350	0.1866
0.0120	17.0247	0.6497	-0.0372	0.1906
0.0180	17.1786	0.6634	-0.0388	0.1954
0.0240	17.3766	0.6801	-0.0389	0.2007
0.0300	17.6250	0.7005	-0.0379	0.2067
0.0360	17.9414	0.7238	-0.0371	0.2136
0.0420	18.3416	0.7526	-0.0375	0.2219
0.0480	18.8278	0.7881	-0.0387	0.2314
0.0540	19.3917	0.8271	-0.0397	0.2418
0.0600	20.0265	0.8667	-0.0400	0.2525
0.0660	20.7331	0.9092	-0.0406	0.2643
0.0720	21.5093	0.9584	-0.0418	0.2771
0.0780	22.3444	1.0133	-0.0433	0.2904
0.0840	23.2208	1.0691	-0.0453	0.3040
0.0900	24.1147	1.1243	-0.0470	0.3176
0.0960	25.0018	1.1814	-0.0480	0.3308
0.1020	25.8598	1.2384	-0.0483	0.3431
0.1080	26.6696	1.2908	-0.0478	0.3543
0.1140	27.4189	1.3379	-0.0462	0.3640
0.1200	28.1065	1.3819	-0.0437	0.3723
0.1260	28.7404	1.4233	-0.0406	0.3789
0.1320	29.3303	1.4591	-0.0374	0.3840
0.1380	29.8783	1.4864	-0.0343	0.3877
0.1440	30.3772	1.5055	-0.0316	0.3901
0.1500	30.8157	1.5172	-0.0293	0.3913
0.1560	31.1843	1.5207	-0.0275	0.3913
0.1620	31.4801	1.5185	-0.0268	0.3906
0.1680	31.7011	1.5140	-0.0269	0.3893
0.1740	31.8489	1.5076	-0.0264	0.3873
0.1800	31.9371	1.4990	-0.0255	0.3846
0.1860	31.9831	1.4902	-0.0248	0.3818
0.1920	31.9936	1.4821	-0.0242	0.3787
0.1980	31.9679	1.4725	-0.0230	0.3749
0.2040	31.9064	1.4601	-0.0213	0.3705
0.2100	31.8106	1.4457	-0.0198	0.3655
0.2160	31.6765	1.4285	-0.0197	0.3603
0.2220	31.4860	1.4083	-0.0213	0.3552
0.2280	31.2101	1.3863	-0.0232	0.3496
0.2340	30.8281	1.3620	-0.0240	0.3428
0.2400	30.3416	1.3341	-0.0236	0.3346
0.2460	29.7695	1.3028	-0.0232	0.3256
0.2520	29.1276	1.2678	-0.0234	0.3164
0.2580	28.4216	1.2298	-0.0236	0.3070
0.2640	27.6580	1.1898	-0.0239	0.2973
0.2700	26.8496	1.1492	-0.0246	0.2876
0.2760	26.0104	1.1094	-0.0259	0.2780
0.2820	25.1509	1.0703	-0.0275	0.2688
0.2880	24.2783	1.0310	-0.0286	0.2596
0.2940	23.4057	0.9918	-0.0289	0.2504
0.3000	22.5546	0.9528	-0.0291	0.2414
0.3060	21.7477	0.9155	-0.0297	0.2330
0.3120	21.0011	0.8811	-0.0306	0.2251
0.3180	20.3236	0.8490	-0.0315	0.2179
0.3240	19.7166	0.8185	-0.0323	0.2112
0.3300	19.1753	0.7887	-0.0328	0.2050
0.3360	18.6905	0.7584	-0.0331	0.1993
0.3420	18.2545	0.7287	-0.0330	0.1943
0.3480	17.8674	0.7025	-0.0326	0.1902
0.3540	17.5384	0.6838	-0.0321	0.1872
0.3600	17.2769	0.6732	-0.0320	0.1849
0.3660	17.0834	0.6643	-0.0322	0.1832
0.3720	16.9502	0.6523	-0.0325	0.1823
0.3780	16.8713	0.6409	-0.0328	0.1825
0.3840	16.8481	0.6365	-0.0333	0.1839

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.8450	0.6523	-0.0320	0.1794
0.0180	16.9290	0.6577	-0.0331	0.1821
0.0360	17.1652	0.6759	-0.0358	0.1873
0.0540	17.3782	0.6946	-0.0351	0.1934
0.0720	17.6510	0.7229	-0.0351	0.2020
0.0900	18.1730	0.7732	-0.0364	0.2140
0.1080	18.9273	0.8177	-0.0380	0.2280
0.1260	19.7612	0.8869	-0.0397	0.2445
0.1440	20.8435	0.9541	-0.0412	0.2638
0.1620	22.1893	1.0411	-0.0436	0.2859
0.1800	23.7889	1.1242	-0.0464	0.3096
0.1980	25.5076	1.2188	-0.0487	0.3339
0.2160	27.2000	1.3113	-0.0470	0.3565
0.2340	28.8186	1.4023	-0.0403	0.3737
0.2520	30.6222	1.4699	-0.0314	0.3851
0.2700	32.5632	1.5145	-0.0269	0.3960
0.2880	34.4398	1.5636	-0.0276	0.4049
0.3060	36.0677	1.5897	-0.0244	0.4100
0.3240	37.5626	1.6110	-0.0202	0.4140
0.3420	39.0882	1.6319	-0.0192	0.4153
0.3600	40.6506	1.6391	-0.0179	0.4114
0.3780	42.1519	1.6151	-0.0171	0.4045
0.3960	43.4024	1.5775	-0.0207	0.3947
0.4140	44.5462	1.5358	-0.0239	0.3827
0.4320	45.4865	1.4723	-0.0279	0.3714
0.4500	46.2329	1.4305	-0.0353	0.3581
0.4680	46.9125	1.3780	-0.0412	0.3489
0.4860	47.4274	1.3589	-0.0450	0.3413
0.5040	47.8423	1.3220	-0.0462	0.3349
0.5220	48.0712	1.3048	-0.0485	0.3295
0.5400	48.1810	1.2779	-0.0491	0.3233
0.5580	48.1851	1.2563	-0.0500	0.3178
0.5760	48.0965	1.2374	-0.0477	0.3120
0.5940	47.9785	1.2170	-0.0447	0.3070
0.6120	47.8608	1.2060	-0.0432	0.3045
0.6300	47.6165	1.1961	-0.0427	0.3043
0.6480	47.0931	1.1939	-0.0376	0.3007
0.6660	46.1400	1.1704	-0.0332	0.2978
0.6840	45.1074	1.1824	-0.0307	0.2955
0.7020	43.9600	1.1588	-0.0279	0.2946
0.7200	42.6134	1.1696	-0.0250	0.2941
0.7380	41.1032	1.1512	-0.0195	0.2937
0.7560	39.4257	1.1585	-0.0167	0.2944
0.7740	37.8984	1.1645	-0.0109	0.2961
0.7920	36.2811	1.1634	-0.0113	0.2995
0.8100	34.6456	1.1791	-0.0155	0.3005
0.8280	32.8080	1.1619	-0.0162	0.2995
0.8460	30.8665	1.1571	-0.0169	0.2916
0.8640	29.2075	1.1071	-0.0201	0.2823
0.8820	27.6070	1.0694	-0.0249	0.2716
0.9000	26.0347	1.0101	-0.0264	0.2580
0.9180	24.4516	0.9530	-0.0289	0.2459
0.9360	22.9776	0.9079	-0.0321	0.2347
0.9540	21.5781	0.8546	-0.0330	0.2240
0.9720	20.4471	0.8221	-0.0334	0.2123
0.9900	19.5770	0.7655	-0.0335	0.2021
1.0080	18.7742	0.7274	-0.0333	0.1929
1.0260	18.0881	0.6940	-0.0325	0.1867
1.0440	17.5608	0.6711	-0.0320	0.1818
1.0620	17.1712	0.6557	-0.0318	0.1793
1.0800	16.9349	0.6496	-0.0317	0.1783

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 16 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	17.1679	0.6161	-0.0315	0.1732
0.0060	17.1641	0.6102	-0.0329	0.1759
0.0120	17.2508	0.6110	-0.0350	0.1804
0.0180	17.4318	0.6201	-0.0373	0.1867
0.0240	17.7197	0.6393	-0.0386	0.1946
0.0300	18.1387	0.6686	-0.0385	0.2038
0.0360	18.7190	0.7062	-0.0378	0.2149
0.0420	19.4824	0.7493	-0.0374	0.2283
0.0480	20.4355	0.7986	-0.0377	0.2444
0.0540	21.5735	0.8590	-0.0391	0.2634
0.0600	22.8833	0.9343	-0.0417	0.2847
0.0660	24.3424	1.0233	-0.0450	0.3075
0.0720	25.9180	1.1209	-0.0476	0.3308
0.0780	27.5742	1.2220	-0.0479	0.3534
0.0840	29.2831	1.3231	-0.0459	0.3747
0.0900	31.0244	1.4217	-0.0431	0.3945
0.0960	32.7731	1.5154	-0.0402	0.4126
0.1020	34.4946	1.6009	-0.0367	0.4279
0.1080	36.1569	1.6739	-0.0321	0.4397
0.1140	37.7430	1.7332	-0.0272	0.4484
0.1200	39.2466	1.7807	-0.0237	0.4544
0.1260	40.6603	1.8171	-0.0222	0.4583
0.1320	41.9700	1.8420	-0.0222	0.4597
0.1380	43.1608	1.8564	-0.0224	0.4585
0.1440	44.2235	1.8603	-0.0224	0.4544
0.1500	45.1541	1.8512	-0.0223	0.4480
0.1560	45.9483	1.8290	-0.0224	0.4397
0.1620	46.6036	1.7950	-0.0230	0.4300
0.1680	47.1241	1.7518	-0.0252	0.4199
0.1740	47.5185	1.7055	-0.0286	0.4097
0.1800	47.8003	1.6603	-0.0322	0.3994
0.1860	47.9894	1.6165	-0.0356	0.3891
0.1920	48.1015	1.5727	-0.0382	0.3791
0.1980	48.1464	1.5309	-0.0391	0.3694
0.2040	48.1317	1.4948	-0.0390	0.3598
0.2100	48.0558	1.4627	-0.0385	0.3505
0.2160	47.9013	1.4278	-0.0376	0.3412
0.2220	47.6420	1.3873	-0.0372	0.3324
0.2280	47.2453	1.3462	-0.0384	0.3246
0.2340	46.6745	1.3090	-0.0394	0.3171
0.2400	45.9107	1.2771	-0.0384	0.3091
0.2460	44.9658	1.2499	-0.0357	0.3006
0.2520	43.8606	1.2211	-0.0317	0.2920
0.2580	42.6076	1.1846	-0.0264	0.2834
0.2640	41.2191	1.1414	-0.0200	0.2753
0.2700	39.7185	1.1001	-0.0142	0.2685
0.2760	38.1382	1.0681	-0.0103	0.2630
0.2820	36.5090	1.0465	-0.0085	0.2586
0.2880	34.8505	1.0302	-0.0078	0.2545
0.2940	33.1758	1.0129	-0.0070	0.2499
0.3000	31.5018	0.9919	-0.0065	0.2448
0.3060	29.8486	0.9684	-0.0074	0.2397
0.3120	28.2320	0.9432	-0.0097	0.2342
0.3180	26.6680	0.9171	-0.0125	0.2280
0.3240	25.1796	0.8904	-0.0149	0.2210
0.3300	23.7939	0.8621	-0.0169	0.2133
0.3360	22.5351	0.8299	-0.0186	0.2052
0.3420	21.4176	0.7941	-0.0207	0.1976
0.3480	20.4435	0.7572	-0.0230	0.1911
0.3540	19.6069	0.7231	-0.0253	0.1856
0.3600	18.9012	0.6941	-0.0273	0.1812
0.3660	18.3228	0.6712	-0.0288	0.1776
0.3720	17.8682	0.6528	-0.0297	0.1747
0.3780	17.5329	0.6367	-0.0300	0.1726
0.3840	17.3119	0.6221	-0.0302	0.1719
0.3900	17.1982	0.6114	-0.0312	0.1727

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 16 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	16.9573	0.6340	-0.0316	0.1737
0.0180	17.0693	0.6422	-0.0337	0.1782
0.0360	17.3502	0.6681	-0.0369	0.1864
0.0540	17.6700	0.6982	-0.0358	0.1959
0.0720	18.2410	0.7451	-0.0376	0.2101
0.0900	19.1145	0.8072	-0.0389	0.2271
0.1080	20.2863	0.8900	-0.0402	0.2487
0.1260	21.8696	0.9807	-0.0429	0.2744
0.1440	23.8122	1.0853	-0.0454	0.3036
0.1620	26.0511	1.2174	-0.0483	0.3358
0.1800	28.2694	1.3420	-0.0443	0.3656
0.1980	30.6297	1.4675	-0.0357	0.3892
0.2160	33.3178	1.5637	-0.0318	0.4098
0.2340	35.8800	1.6333	-0.0274	0.4246
0.2520	38.3089	1.6841	-0.0218	0.4332
0.2700	40.8794	1.7293	-0.0225	0.4389
0.2880	43.4210	1.7514	-0.0219	0.4363
0.3060	45.7400	1.7170	-0.0239	0.4215
0.3240	47.7913	1.6341	-0.0378	0.4018
0.3420	49.5724	1.5429	-0.0528	0.3840
0.3600	51.2595	1.4704	-0.0643	0.3707
0.3780	53.0110	1.4313	-0.0739	0.3641
0.3960	54.7050	1.4128	-0.0848	0.3620
0.4140	56.1941	1.3994	-0.0960	0.3605
0.4320	57.5612	1.3949	-0.1035	0.3571
0.4500	58.7563	1.3745	-0.1070	0.3542
0.4680	59.8080	1.3641	-0.1097	0.3519
0.4860	60.7744	1.3683	-0.1103	0.3486
0.5040	61.3978	1.3401	-0.1091	0.3464
0.5220	62.0187	1.3506	-0.1108	0.3452
0.5400	62.6218	1.3396	-0.1105	0.3433
0.5580	62.7480	1.3297	-0.1079	0.3401
0.5760	62.6479	1.3103	-0.1040	0.3354
0.5940	62.4469	1.2926	-0.1027	0.3320
0.6120	62.1008	1.2943	-0.1044	0.3295
0.6300	61.4297	1.2699	-0.0999	0.3215
0.6480	60.1998	1.2402	-0.0956	0.3162
0.6660	58.8423	1.2288	-0.0915	0.3079
0.6840	57.3227	1.1878	-0.0874	0.3007
0.7020	55.5834	1.1818	-0.0834	0.2936
0.7200	53.6810	1.1382	-0.0778	0.2856
0.7380	51.6949	1.1174	-0.0728	0.2774
0.7560	49.8688	1.0746	-0.0686	0.2700
0.7740	47.9163	1.0540	-0.0676	0.2646
0.7920	45.7643	1.0289	-0.0575	0.2567
0.8100	43.5014	1.0038	-0.0457	0.2535
0.8280	41.1101	1.0049	-0.0223	0.2516
0.8460	38.6405	0.9945	-0.0093	0.2568
0.8640	36.1859	1.0501	-0.0115	0.2651
0.8820	33.7451	1.0512	-0.0117	0.2682
0.9000	31.1821	1.0554	-0.0123	0.2661
0.9180	28.9322	1.0318	-0.0179	0.2595
0.9360	26.8209	0.9846	-0.0234	0.2487
0.9540	24.7703	0.9266	-0.0258	0.2347
0.9720	22.8882	0.8693	-0.0294	0.2232
0.9900	21.2512	0.8261	-0.0315	0.2110
1.0080	19.9988	0.7689	-0.0322	0.1984
1.0260	19.0185	0.7287	-0.0334	0.1883
1.0440	18.1884	0.6823	-0.0324	0.1803
1.0620	17.5318	0.6522	-0.0314	0.1754
1.0800	17.1225	0.6467	-0.0320	0.1738
1.0980	16.9429	0.6394	-0.0317	0.1742

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 16 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	17.2721	0.6005	-0.0314	0.1726
0.0060	17.3329	0.6076	-0.0347	0.1778
0.0120	17.5533	0.6117	-0.0369	0.1851
0.0180	17.9490	0.6230	-0.0375	0.1950
0.0240	18.5569	0.6542	-0.0369	0.2079
0.0300	19.4243	0.7052	-0.0365	0.2238
0.0360	20.5880	0.7688	-0.0370	0.2431
0.0420	22.0585	0.8441	-0.0387	0.2661
0.0480	23.8161	0.9374	-0.0413	0.2930
0.0540	25.8145	1.0486	-0.0442	0.3221
0.0600	27.9968	1.1703	-0.0458	0.3515
0.0660	30.3157	1.2995	-0.0456	0.3800
0.0720	32.7355	1.4361	-0.0441	0.4065
0.0780	35.2173	1.5688	-0.0413	0.4295
0.0840	37.7158	1.6845	-0.0380	0.4486
0.0900	40.1800	1.7814	-0.0356	0.4635
0.0960	42.5589	1.8586	-0.0347	0.4739
0.1020	44.8137	1.9147	-0.0358	0.4793
0.1080	46.9213	1.9506	-0.0382	0.4795
0.1140	48.8788	1.9631	-0.0410	0.4743
0.1200	50.7004	1.9498	-0.0457	0.4654
0.1260	52.3938	1.9117	-0.0530	0.4546
0.1320	53.9522	1.8553	-0.0627	0.4433
0.1380	55.3651	1.7935	-0.0740	0.4326
0.1440	56.6264	1.7372	-0.0849	0.4224
0.1500	57.7470	1.6886	-0.0940	0.4126
0.1560	58.7493	1.6469	-0.1010	0.4036
0.1620	59.6484	1.6106	-0.1063	0.3957
0.1680	60.4429	1.5776	-0.1102	0.3891
0.1740	61.1153	1.5464	-0.1135	0.3835
0.1800	61.6413	1.5189	-0.1161	0.3787
0.1860	62.0051	1.4960	-0.1172	0.3736
0.1920	62.2104	1.4775	-0.1172	0.3681
0.1980	62.2673	1.4632	-0.1160	0.3620
0.2040	62.1796	1.4503	-0.1135	0.3552
0.2100	61.9337	1.4321	-0.1110	0.3479
0.2160	61.4908	1.4017	-0.1087	0.3406
0.2220	60.8034	1.3626	-0.1061	0.3333
0.2280	59.8452	1.3264	-0.1025	0.3253
0.2340	58.6277	1.2984	-0.0979	0.3160
0.2400	57.1892	1.2719	-0.0920	0.3051
0.2460	55.5767	1.2389	-0.0849	0.2929
0.2520	53.8297	1.1970	-0.0775	0.2801
0.2580	51.9705	1.1464	-0.0710	0.2675
0.2640	50.0049	1.0906	-0.0666	0.2559
0.2700	47.9292	1.0378	-0.0634	0.2454
0.2760	45.7449	0.9944	-0.0598	0.2352
0.2820	43.4707	0.9565	-0.0543	0.2243
0.2880	41.1431	0.9138	-0.0468	0.2126
0.2940	38.8059	0.8640	-0.0387	0.2017
0.3000	36.4896	0.8142	-0.0310	0.1929
0.3060	34.2101	0.7717	-0.0233	0.1861
0.3120	31.9874	0.7379	-0.0153	0.1809
0.3180	29.8549	0.7132	-0.0088	0.1776
0.3240	27.8427	0.6972	-0.0050	0.1762
0.3300	25.9650	0.6872	-0.0040	0.1758
0.3360	24.2295	0.6778	-0.0049	0.1752
0.3420	22.6568	0.6671	-0.0074	0.1739
0.3480	21.2837	0.6592	-0.0114	0.1725
0.3540	20.1418	0.6572	-0.0161	0.1709
0.3600	19.2361	0.6557	-0.0205	0.1694
0.3660	18.5409	0.6446	-0.0236	0.1678
0.3720	18.0183	0.6226	-0.0253	0.1669
0.3780	17.6427	0.6018	-0.0266	0.1675
0.3840	17.4085	0.5946	-0.0284	0.1699
0.3900	17.3239	0.6002	-0.0313	0.1739

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 24 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	C1
0.0000	26.0298	1.1058	-0.0401	0.2864
0.0180	26.0860	1.1190	-0.0420	0.2898
0.0360	26.2808	1.1325	-0.0450	0.2947
0.0540	26.4378	1.1477	-0.0460	0.2994
0.0720	26.5407	1.1599	-0.0455	0.3044
0.0900	26.7649	1.1877	-0.0466	0.3116
0.1080	27.0330	1.2149	-0.0450	0.3191
0.1260	27.2732	1.2396	-0.0437	0.3262
0.1440	27.7286	1.2680	-0.0445	0.3342
0.1620	28.3357	1.3139	-0.0434	0.3433
0.1800	28.9541	1.3439	-0.0396	0.3495
0.1980	29.6203	1.3736	-0.0369	0.3542
0.2160	30.4185	1.3893	-0.0305	0.3559
0.2340	31.2037	1.3831	-0.0271	0.3580
0.2520	32.1199	1.4089	-0.0277	0.3613
0.2700	33.0614	1.4154	-0.0257	0.3652
0.2880	34.0518	1.4551	-0.0262	0.3711
0.3060	34.9858	1.4683	-0.0238	0.3767
0.3240	35.7493	1.4994	-0.0242	0.3821
0.3420	36.5444	1.5214	-0.0241	0.3849
0.3600	37.1435	1.5209	-0.0224	0.3860
0.3780	37.7712	1.5382	-0.0210	0.3861
0.3960	38.3523	1.5229	-0.0195	0.3850
0.4140	38.9130	1.5288	-0.0187	0.3826
0.4320	39.4954	1.5146	-0.0154	0.3784
0.4500	39.9939	1.4969	-0.0166	0.3734
0.4680	40.4344	1.4810	-0.0173	0.3671
0.4860	40.7942	1.4561	-0.0158	0.3614
0.5040	41.1048	1.4396	-0.0158	0.3567
0.5220	41.3128	1.4242	-0.0148	0.3531
0.5400	41.4406	1.4104	-0.0152	0.3485
0.5580	41.4628	1.3869	-0.0169	0.3448
0.5760	41.3466	1.3752	-0.0173	0.3414
0.5940	41.2653	1.3616	-0.0136	0.3377
0.6120	41.1462	1.3382	-0.0133	0.3356
0.6300	41.0573	1.3348	-0.0137	0.3342
0.6480	40.9692	1.3224	-0.0141	0.3333
0.6660	40.7544	1.3272	-0.0152	0.3333
0.6840	40.3865	1.3198	-0.0137	0.3314
0.7020	39.8584	1.3206	-0.0121	0.3298
0.7200	39.2627	1.3029	-0.0114	0.3281
0.7380	38.5855	1.3017	-0.0134	0.3291
0.7560	37.8674	1.3069	-0.0141	0.3299
0.7740	37.1541	1.3082	-0.0156	0.3300
0.7920	36.4462	1.3053	-0.0170	0.3294
0.8100	35.6715	1.2997	-0.0182	0.3285
0.8280	34.7999	1.2835	-0.0194	0.3258
0.8460	33.8717	1.2653	-0.0207	0.3236
0.8640	32.9419	1.2570	-0.0216	0.3201
0.8820	32.0127	1.2400	-0.0231	0.3155
0.9000	31.1462	1.2260	-0.0229	0.3097
0.9180	30.4240	1.2012	-0.0249	0.3045
0.9360	29.8205	1.1880	-0.0266	0.2995
0.9540	29.2176	1.1617	-0.0269	0.2943
0.9720	28.6131	1.1476	-0.0288	0.2896
0.9900	28.1181	1.1306	-0.0286	0.2855
1.0080	27.6289	1.1171	-0.0293	0.2824
1.0260	27.1705	1.0961	-0.0303	0.2798
1.0440	26.7634	1.0865	-0.0316	0.2786
1.0620	26.4659	1.0835	-0.0333	0.2788
1.0800	26.1902	1.0893	-0.0344	0.2808
1.0980	26.0539	1.1001	-0.0372	0.2835

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 24 deg.
 Alpha Max. = 40 deg.

Time	Alpha	CN	Cm	Cl
0.0000	26.2954	1.0228	-0.0330	0.2695
0.0060	26.3239	1.0323	-0.0349	0.2729
0.0120	26.4176	1.0471	-0.0374	0.2772
0.0180	26.5710	1.0643	-0.0399	0.2824
0.0240	26.7735	1.0837	-0.0414	0.2884
0.0300	27.0194	1.1067	-0.0411	0.2945
0.0360	27.3147	1.1322	-0.0390	0.3006
0.0420	27.6762	1.1567	-0.0363	0.3070
0.0480	28.1188	1.1805	-0.0343	0.3142
0.0540	28.6445	1.2081	-0.0333	0.3223
0.0600	29.2465	1.2408	-0.0322	0.3305
0.0660	29.9222	1.2768	-0.0308	0.3384
0.0720	30.6714	1.3142	-0.0296	0.3463
0.0780	31.4835	1.3519	-0.0290	0.3542
0.0840	32.3341	1.3871	-0.0286	0.3621
0.0900	33.1951	1.4189	-0.0283	0.3697
0.0960	34.0441	1.4510	-0.0284	0.3770
0.1020	34.8647	1.4849	-0.0288	0.3836
0.1080	35.6444	1.5168	-0.0290	0.3892
0.1140	36.3730	1.5447	-0.0283	0.3937
0.1200	37.0459	1.5675	-0.0264	0.3969
0.1260	37.6680	1.5847	-0.0242	0.3991
0.1320	38.2457	1.5978	-0.0227	0.4008
0.1380	38.7799	1.6083	-0.0218	0.4019
0.1440	39.2693	1.6171	-0.0208	0.4025
0.1500	39.7147	1.6242	-0.0199	0.4024
0.1560	40.1143	1.6279	-0.0194	0.4018
0.1620	40.4608	1.6272	-0.0194	0.4007
0.1680	40.7462	1.6236	-0.0194	0.3988
0.1740	40.9707	1.6191	-0.0191	0.3959
0.1800	41.1418	1.6114	-0.0185	0.3922
0.1860	41.2666	1.5979	-0.0179	0.3880
0.1920	41.3452	1.5793	-0.0171	0.3836
0.1980	41.3772	1.5598	-0.0159	0.3790
0.2040	41.3681	1.5423	-0.0145	0.3740
0.2100	41.3247	1.5263	-0.0133	0.3685
0.2160	41.2466	1.5069	-0.0120	0.3624
0.2220	41.1268	1.4792	-0.0107	0.3563
0.2280	40.9593	1.4472	-0.0106	0.3510
0.2340	40.7377	1.4198	-0.0123	0.3467
0.2400	40.4520	1.4005	-0.0148	0.3429
0.2460	40.0916	1.3872	-0.0160	0.3386
0.2520	39.6533	1.3742	-0.0154	0.3336
0.2580	39.1393	1.3548	-0.0140	0.3286
0.2640	38.5512	1.3287	-0.0129	0.3239
0.2700	37.8929	1.3031	-0.0126	0.3198
0.2760	37.1762	1.2837	-0.0132	0.3163
0.2820	36.4183	1.2707	-0.0143	0.3130
0.2880	35.6339	1.2601	-0.0156	0.3096
0.2940	34.8266	1.2470	-0.0164	0.3062
0.3000	33.9944	1.2287	-0.0162	0.3024
0.3060	33.1454	1.2073	-0.0159	0.2985
0.3120	32.3034	1.1878	-0.0160	0.2947
0.3180	31.5011	1.1743	-0.0172	0.2912
0.3240	30.7639	1.1651	-0.0193	0.2881
0.3300	30.0986	1.1556	-0.0215	0.2850
0.3360	29.4962	1.1412	-0.0232	0.2818
0.3420	28.9437	1.1210	-0.0244	0.2787
0.3480	28.4331	1.0990	-0.0254	0.2756
0.3540	27.9664	1.0806	-0.0265	0.2729
0.3600	27.5521	1.0677	-0.0279	0.2704
0.3660	27.1981	1.0576	-0.0291	0.2683
0.3720	26.9080	1.0483	-0.0301	0.2667
0.3780	26.6800	1.0394	-0.0305	0.2658
0.3840	26.5104	1.0306	-0.0307	0.2656
0.3900	26.3978	1.0230	-0.0313	0.2664
0.3960	26.3434	1.0208	-0.0324	0.2683

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	26.1172	1.0723	-0.0386	0.2778
0.0180	26.2522	1.0967	-0.0421	0.2848
0.0360	26.5066	1.1241	-0.0452	0.2926
0.0540	26.7487	1.1467	-0.0450	0.3012
0.0720	27.1139	1.1907	-0.0445	0.3115
0.0900	27.5836	1.2192	-0.0420	0.3228
0.1080	28.3457	1.2896	-0.0434	0.3367
0.1260	29.3647	1.3338	-0.0393	0.3494
0.1440	30.4764	1.3943	-0.0348	0.3604
0.1620	31.9154	1.4327	-0.0301	0.3687
0.1800	33.4616	1.4689	-0.0288	0.3778
0.1980	35.1197	1.5180	-0.0273	0.3869
0.2160	36.6593	1.5496	-0.0258	0.3962
0.2340	38.0845	1.5927	-0.0221	0.4030
0.2520	39.6475	1.6200	-0.0196	0.4085
0.2700	41.2885	1.6481	-0.0202	0.4102
0.2880	43.0248	1.6475	-0.0187	0.4055
0.3060	44.6010	1.6198	-0.0208	0.3980
0.3240	46.0593	1.5828	-0.0276	0.3854
0.3420	47.3464	1.5155	-0.0378	0.3712
0.3600	48.5964	1.4678	-0.0471	0.3612
0.3780	49.7286	1.4275	-0.0532	0.3551
0.3960	50.6505	1.4091	-0.0585	0.3481
0.4140	51.5232	1.3764	-0.0619	0.3414
0.4320	52.2895	1.3383	-0.0669	0.3377
0.4500	53.0704	1.3431	-0.0747	0.3349
0.4680	53.6948	1.3064	-0.0827	0.3332
0.4860	54.2917	1.3313	-0.0914	0.3336
0.5040	54.8875	1.3198	-0.0929	0.3309
0.5220	55.1023	1.3064	-0.0940	0.3267
0.5400	55.1899	1.2866	-0.0935	0.3238
0.5580	55.2593	1.2821	-0.0932	0.3218
0.5760	55.2655	1.2695	-0.0922	0.3195
0.5940	55.1899	1.2584	-0.0913	0.3168
0.6120	55.0554	1.2536	-0.0892	0.3128
0.6300	54.8947	1.2385	-0.0888	0.3084
0.6480	54.6077	1.2214	-0.0898	0.3055
0.6660	54.0304	1.2104	-0.0858	0.3005
0.6840	53.0694	1.1862	-0.0822	0.2973
0.7020	52.0799	1.1905	-0.0789	0.2913
0.7200	51.1107	1.1535	-0.0764	0.2877
0.7380	50.0906	1.1530	-0.0750	0.2849
0.7560	48.9878	1.1361	-0.0708	0.2818
0.7740	47.6641	1.1393	-0.0644	0.2793
0.7920	46.3458	1.1227	-0.0493	0.2753
0.8100	45.0462	1.1193	-0.0356	0.2755
0.8280	43.5094	1.1175	-0.0257	0.2754
0.8460	41.7634	1.1218	-0.0207	0.2788
0.8640	40.1206	1.1395	-0.0164	0.2834
0.8820	38.5544	1.1575	-0.0146	0.2899
0.9000	37.1165	1.1904	-0.0149	0.2936
0.9180	35.7131	1.1888	-0.0153	0.2965
0.9360	34.1761	1.1890	-0.0179	0.2972
0.9540	32.6719	1.1841	-0.0188	0.2952
0.9720	31.2940	1.1664	-0.0209	0.2907
0.9900	30.2011	1.1463	-0.0248	0.2857
1.0080	29.2825	1.1146	-0.0267	0.2799
1.0260	28.4376	1.0925	-0.0284	0.2741
1.0440	27.7301	1.0646	-0.0281	0.2687
1.0620	27.1165	1.0376	-0.0299	0.2666
1.0800	26.6667	1.0375	-0.0330	0.2669
1.0980	26.3272	1.0392	-0.0348	0.2699
1.1160	26.1566	1.0624	-0.0384	0.2747

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 24 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	26.6059	0.9856	-0.0295	0.2526
0.0060	26.6199	0.9907	-0.0317	0.2570
0.0120	26.7227	0.9959	-0.0340	0.2627
0.0180	26.9121	1.0070	-0.0358	0.2701
0.0240	27.2045	1.0317	-0.0364	0.2785
0.0300	27.6328	1.0695	-0.0355	0.2876
0.0360	28.2312	1.1123	-0.0333	0.2973
0.0420	29.0187	1.1548	-0.0310	0.3084
0.0480	29.9902	1.1976	-0.0292	0.3212
0.0540	31.1260	1.2465	-0.0282	0.3355
0.0600	32.4044	1.3069	-0.0287	0.3507
0.0660	33.8000	1.3766	-0.0306	0.3661
0.0720	35.2793	1.4494	-0.0324	0.3806
0.0780	36.8074	1.5182	-0.0322	0.3932
0.0840	38.3616	1.5777	-0.0304	0.4038
0.0900	39.9310	1.6286	-0.0291	0.4131
0.0960	41.5016	1.6749	-0.0295	0.4212
0.1020	43.0478	1.7172	-0.0314	0.4276
0.1080	44.5411	1.7524	-0.0335	0.4313
0.1140	45.9597	1.7786	-0.0356	0.4322
0.1200	47.2834	1.7924	-0.0376	0.4303
0.1260	48.4928	1.7888	-0.0394	0.4256
0.1320	49.5769	1.7672	-0.0419	0.4193
0.1380	50.5344	1.7350	-0.0451	0.4116
0.1440	51.3790	1.6994	-0.0494	0.4032
0.1500	52.1352	1.6623	-0.0552	0.3950
0.1560	52.8207	1.6268	-0.0615	0.3874
0.1620	53.4421	1.5961	-0.0670	0.3805
0.1680	53.9963	1.5696	-0.0720	0.3742
0.1740	54.4646	1.5413	-0.0761	0.3681
0.1800	54.8285	1.5060	-0.0787	0.3621
0.1860	55.0882	1.4706	-0.0812	0.3567
0.1920	55.2564	1.4453	-0.0838	0.3518
0.1980	55.3512	1.4286	-0.0857	0.3469
0.2040	55.3886	1.4132	-0.0872	0.3419
0.2100	55.3713	1.3972	-0.0877	0.3369
0.2160	55.2905	1.3821	-0.0871	0.3315
0.2220	55.1337	1.3672	-0.0862	0.3260
0.2280	54.8795	1.3486	-0.0858	0.3205
0.2340	54.4956	1.3236	-0.0857	0.3151
0.2400	53.9551	1.2966	-0.0850	0.3093
0.2460	53.2540	1.2729	-0.0833	0.3027
0.2520	52.4116	1.2525	-0.0804	0.2951
0.2580	51.4591	1.2312	-0.0769	0.2869
0.2640	50.4161	1.2045	-0.0737	0.2788
0.2700	49.2769	1.1697	-0.0701	0.2710
0.2760	48.0287	1.1305	-0.0658	0.2637
0.2820	46.6714	1.0931	-0.0613	0.2571
0.2880	45.2223	1.0629	-0.0562	0.2511
0.2940	43.7148	1.0404	-0.0493	0.2450
0.3000	42.1946	1.0203	-0.0405	0.2389
0.3060	40.7047	0.9992	-0.0310	0.2338
0.3120	39.2634	0.9775	-0.0225	0.2305
0.3180	37.8602	0.9574	-0.0157	0.2294
0.3240	36.4731	0.9414	-0.0111	0.2301
0.3300	35.0944	0.9313	-0.0081	0.2316
0.3360	33.7483	0.9299	-0.0068	0.2336
0.3420	32.4825	0.9397	-0.0075	0.2359
0.3480	31.3415	0.9565	-0.0100	0.2383
0.3540	30.3454	0.9719	-0.0131	0.2406
0.3600	29.4883	0.9800	-0.0158	0.2422
0.3660	28.7540	0.9798	-0.0181	0.2435
0.3720	28.1270	0.9770	-0.0203	0.2448
0.3780	27.5996	0.9763	-0.0225	0.2461
0.3840	27.1740	0.9769	-0.0242	0.2472
0.3900	26.8619	0.9787	-0.0257	0.2485
0.3960	26.6729	0.9833	-0.0275	0.2506

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	33.7696	1.2826	-0.0197	0.3350
0.0180	33.8756	1.2897	-0.0208	0.3376
0.0360	33.9938	1.3052	-0.0194	0.3408
0.0540	34.1184	1.3199	-0.0188	0.3447
0.0720	34.3259	1.3376	-0.0189	0.3488
0.0900	34.5824	1.3522	-0.0178	0.3530
0.1080	34.9537	1.3794	-0.0177	0.3585
0.1260	35.3380	1.3972	-0.0164	0.3641
0.1440	35.7207	1.4199	-0.0171	0.3682
0.1620	36.2999	1.4386	-0.0165	0.3706
0.1800	36.9721	1.4430	-0.0148	0.3727
0.1980	37.6455	1.4533	-0.0148	0.3743
0.2160	38.4557	1.4620	-0.0135	0.3743
0.2340	39.2815	1.4617	-0.0123	0.3744
0.2520	40.1101	1.4741	-0.0114	0.3716
0.2700	40.9163	1.4444	-0.0117	0.3657
0.2880	41.7362	1.4253	-0.0168	0.3596
0.3060	42.5956	1.3946	-0.0188	0.3544
0.3240	43.2986	1.3814	-0.0206	0.3514
0.3420	43.9799	1.3757	-0.0231	0.3476
0.3600	44.5856	1.3469	-0.0273	0.3433
0.3780	45.1413	1.3312	-0.0315	0.3392
0.3960	45.7053	1.3210	-0.0330	0.3359
0.4140	46.1767	1.3076	-0.0354	0.3339
0.4320	46.6536	1.3081	-0.0397	0.3315
0.4500	47.0723	1.2959	-0.0422	0.3272
0.4680	47.3732	1.2759	-0.0433	0.3225
0.4860	47.6165	1.2632	-0.0453	0.3179
0.5040	47.8107	1.2423	-0.0462	0.3134
0.5220	47.9288	1.2279	-0.0461	0.3118
0.5400	47.9745	1.2291	-0.0460	0.3117
0.5580	47.9458	1.2283	-0.0449	0.3108
0.5760	47.9008	1.2309	-0.0450	0.3101
0.5940	47.7882	1.2250	-0.0435	0.3083
0.6120	47.7034	1.2200	-0.0431	0.3067
0.6300	47.6256	1.2133	-0.0430	0.3044
0.6480	47.5263	1.1940	-0.0413	0.3006
0.6660	47.3711	1.1870	-0.0407	0.2992
0.6840	47.0622	1.1788	-0.0383	0.2958
0.7020	46.5080	1.1611	-0.0367	0.2938
0.7200	45.8374	1.1656	-0.0340	0.2942
0.7380	45.2427	1.1714	-0.0316	0.2951
0.7560	44.6196	1.1716	-0.0302	0.2958
0.7740	43.9854	1.1835	-0.0272	0.2969
0.7920	43.2586	1.1730	-0.0236	0.2990
0.8100	42.4043	1.1907	-0.0224	0.3030
0.8280	41.5788	1.2054	-0.0167	0.3059
0.8460	40.6826	1.2066	-0.0146	0.3086
0.8640	39.8404	1.2225	-0.0142	0.3100
0.8820	39.0443	1.2152	-0.0119	0.3133
0.9000	38.2704	1.2418	-0.0113	0.3177
0.9180	37.6092	1.2448	-0.0105	0.3206
0.9360	36.9500	1.2581	-0.0113	0.3234
0.9540	36.3530	1.2679	-0.0110	0.3249
0.9720	35.8132	1.2738	-0.0122	0.3262
0.9900	35.3529	1.2679	-0.0138	0.3272
1.0080	34.9509	1.2713	-0.0166	0.3282
1.0260	34.5949	1.2718	-0.0165	0.3284
1.0440	34.2764	1.2730	-0.0160	0.3300
1.0620	34.0296	1.2794	-0.0169	0.3320
1.0800	33.8593	1.2854	-0.0182	0.3339
1.0980	33.7752	1.2883	-0.0179	0.3350
1.1160	33.7914	1.2909	-0.0191	0.3362

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 32 deg.
 Alpha Max. = 48 deg.

Time	Alpha	CN	Cm	Cl
0.0000	33.8715	1.2840	-0.0183	0.3338
0.0060	33.9134	1.2965	-0.0198	0.3375
0.0120	34.0044	1.3103	-0.0206	0.3413
0.0180	34.1446	1.3240	-0.0203	0.3452
0.0240	34.3397	1.3377	-0.0196	0.3495
0.0300	34.5968	1.3537	-0.0189	0.3543
0.0360	34.9188	1.3731	-0.0185	0.3595
0.0420	35.3068	1.3941	-0.0179	0.3647
0.0480	35.7649	1.4166	-0.0172	0.3699
0.0540	36.2983	1.4427	-0.0169	0.3751
0.0600	36.9056	1.4707	-0.0169	0.3799
0.0660	37.5777	1.4962	-0.0167	0.3843
0.0720	38.3032	1.5184	-0.0161	0.3881
0.0780	39.0696	1.5385	-0.0154	0.3914
0.0840	39.8626	1.5570	-0.0149	0.3942
0.0900	40.6652	1.5737	-0.0148	0.3962
0.0960	41.4596	1.5861	-0.0152	0.3973
0.1020	42.2295	1.5937	-0.0162	0.3975
0.1080	42.9604	1.5956	-0.0177	0.3965
0.1140	43.6447	1.5916	-0.0190	0.3944
0.1200	44.2823	1.5840	-0.0204	0.3913
0.1260	44.8747	1.5733	-0.0217	0.3874
0.1320	45.4210	1.5597	-0.0232	0.3830
0.1380	45.9150	1.5433	-0.0249	0.3781
0.1440	46.3474	1.5226	-0.0273	0.3729
0.1500	46.7117	1.4984	-0.0301	0.3676
0.1560	47.0098	1.4741	-0.0328	0.3618
0.1620	47.2559	1.4506	-0.0357	0.3560
0.1680	47.4621	1.4268	-0.0391	0.3508
0.1740	47.6285	1.4033	-0.0418	0.3461
0.1800	47.7517	1.3826	-0.0436	0.3419
0.1860	47.8301	1.3658	-0.0449	0.3381
0.1920	47.8620	1.3508	-0.0451	0.3344
0.1980	47.8520	1.3373	-0.0439	0.3306
0.2040	47.8109	1.3276	-0.0421	0.3268
0.2100	47.7444	1.3192	-0.0402	0.3229
0.2160	47.6497	1.3062	-0.0386	0.3188
0.2220	47.5194	1.2890	-0.0384	0.3151
0.2280	47.3368	1.2719	-0.0399	0.3122
0.2340	47.0789	1.2583	-0.0413	0.3094
0.2400	46.7311	1.2478	-0.0411	0.3059
0.2460	46.2933	1.2360	-0.0389	0.3015
0.2520	45.7751	1.2189	-0.0353	0.2967
0.2580	45.1899	1.1974	-0.0317	0.2925
0.2640	44.5487	1.1772	-0.0292	0.2895
0.2700	43.8564	1.1633	-0.0277	0.2876
0.2760	43.1188	1.1557	-0.0261	0.2859
0.2820	42.3492	1.1505	-0.0237	0.2840
0.2880	41.5647	1.1439	-0.0208	0.2822
0.2940	40.7794	1.1341	-0.0181	0.2810
0.3000	40.0006	1.1226	-0.0156	0.2809
0.3060	39.2372	1.1146	-0.0136	0.2817
0.3120	38.5058	1.1140	-0.0123	0.2832
0.3180	37.8252	1.1211	-0.0117	0.2855
0.3240	37.2068	1.1314	-0.0114	0.2880
0.3300	36.6519	1.1403	-0.0111	0.2909
0.3360	36.1554	1.1482	-0.0109	0.2941
0.3420	35.7118	1.1574	-0.0109	0.2978
0.3480	35.3177	1.1678	-0.0115	0.3017
0.3540	34.9737	1.1797	-0.0122	0.3056
0.3600	34.6849	1.1954	-0.0129	0.3093
0.3660	34.4549	1.2137	-0.0133	0.3127
0.3720	34.2795	1.2283	-0.0136	0.3158
0.3780	34.1465	1.2354	-0.0139	0.3191
0.3840	34.0428	1.2410	-0.0146	0.3227
0.3900	33.9634	1.2516	-0.0154	0.3264
0.3960	33.9160	1.2649	-0.0165	0.3299
0.4020	33.9131	1.2781	-0.0180	0.3335

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 32 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	C1
0.0000	33.9461	1.2861	-0.0179	0.3287
0.0180	34.0450	1.3062	-0.0200	0.3348
0.0360	34.2116	1.3285	-0.0198	0.3398
0.0540	34.4855	1.3444	-0.0189	0.3439
0.0720	34.8861	1.3677	-0.0195	0.3508
0.0900	35.3786	1.4016	-0.0176	0.3568
0.1080	36.0637	1.4194	-0.0166	0.3630
0.1260	36.9716	1.4552	-0.0167	0.3689
0.1440	38.0495	1.4698	-0.0135	0.3726
0.1620	39.3541	1.4969	-0.0159	0.3761
0.1800	40.7703	1.5112	-0.0169	0.3771
0.1980	42.2248	1.5075	-0.0178	0.3738
0.2160	43.7264	1.4884	-0.0218	0.3673
0.2340	45.1183	1.4518	-0.0284	0.3590
0.2520	46.4712	1.4144	-0.0368	0.3514
0.2700	47.8296	1.3868	-0.0445	0.3450
0.2880	49.0520	1.3644	-0.0501	0.3426
0.3060	50.1895	1.3540	-0.0556	0.3405
0.3240	51.3847	1.3463	-0.0626	0.3385
0.3420	52.6564	1.3381	-0.0714	0.3369
0.3600	53.8806	1.3289	-0.0812	0.3364
0.3780	55.0492	1.3288	-0.0903	0.3362
0.3960	56.2423	1.3164	-0.0960	0.3352
0.4140	57.3385	1.3229	-0.0997	0.3350
0.4320	58.2890	1.3238	-0.1015	0.3356
0.4500	59.2014	1.3045	-0.1017	0.3354
0.4680	60.0191	1.3233	-0.1047	0.3376
0.4860	60.7504	1.3242	-0.1044	0.3374
0.5040	61.1782	1.3219	-0.1040	0.3374
0.5220	61.7389	1.3268	-0.1053	0.3373
0.5400	62.3729	1.3275	-0.1059	0.3378
0.5580	62.6095	1.3300	-0.1057	0.3368
0.5760	62.6089	1.3182	-0.1043	0.3329
0.5940	62.5225	1.3004	-0.1016	0.3288
0.6120	62.3363	1.2798	-0.0995	0.3245
0.6300	62.1014	1.2710	-0.1012	0.3214
0.6480	61.7887	1.2714	-0.0984	0.3172
0.6660	61.1503	1.2358	-0.0952	0.3132
0.6840	60.2207	1.2357	-0.0929	0.3093
0.7020	59.2931	1.2072	-0.0894	0.3040
0.7200	58.1277	1.2031	-0.0874	0.2999
0.7380	56.9841	1.1815	-0.0843	0.2944
0.7560	55.7480	1.1624	-0.0826	0.2903
0.7740	54.4311	1.1549	-0.0798	0.2851
0.7920	52.9356	1.1170	-0.0759	0.2804
0.8100	51.5269	1.1129	-0.0728	0.2748
0.8280	50.2588	1.0793	-0.0690	0.2706
0.8460	49.0249	1.0901	-0.0673	0.2684
0.8640	47.7932	1.0638	-0.0606	0.2646
0.8820	46.3750	1.0583	-0.0513	0.2623
0.9000	45.1166	1.0637	-0.0385	0.2608
0.9180	43.8694	1.0598	-0.0266	0.2636
0.9360	42.4969	1.0763	-0.0207	0.2678
0.9540	40.9956	1.0929	-0.0176	0.2734
0.9720	39.6473	1.1277	-0.0148	0.2799
0.9900	38.4666	1.1343	-0.0113	0.2862
1.0080	37.4287	1.1719	-0.0101	0.2943
1.0260	36.5689	1.1974	-0.0076	0.3034
1.0440	35.7710	1.2274	-0.0097	0.3113
1.0620	35.1720	1.2508	-0.0133	0.3160
1.0800	34.6616	1.2565	-0.0160	0.3197
1.0980	34.2920	1.2718	-0.0172	0.3221
1.1160	34.0355	1.2717	-0.0163	0.3244
1.1340	33.9289	1.2856	-0.0184	0.3282

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 32 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	34.2788	1.1091	-0.0136	0.2920
0.0060	34.3102	1.1357	-0.0155	0.3009
0.0120	34.4202	1.1609	-0.0174	0.3100
0.0180	34.6202	1.1911	-0.0189	0.3194
0.0240	34.9367	1.2304	-0.0197	0.3288
0.0300	35.3963	1.2738	-0.0196	0.3381
0.0360	36.0134	1.3156	-0.0186	0.3474
0.0420	36.7899	1.3561	-0.0171	0.3569
0.0480	37.7216	1.3977	-0.0158	0.3665
0.0540	38.8032	1.4426	-0.0159	0.3760
0.0600	40.0213	1.4921	-0.0181	0.3850
0.0660	41.3455	1.5418	-0.0211	0.3925
0.0720	42.7343	1.5830	-0.0237	0.3978
0.0780	44.1469	1.6114	-0.0255	0.4007
0.0840	45.5491	1.6288	-0.0274	0.4015
0.0900	46.9130	1.6348	-0.0298	0.4004
0.0960	48.2218	1.6291	-0.0328	0.3976
0.1020	49.4753	1.6154	-0.0370	0.3936
0.1080	50.6858	1.5974	-0.0430	0.3891
0.1140	51.8665	1.5765	-0.0504	0.3845
0.1200	53.0259	1.5551	-0.0588	0.3803
0.1260	54.1624	1.5345	-0.0674	0.3765
0.1320	55.2635	1.5139	-0.0754	0.3732
0.1380	56.3106	1.4949	-0.0822	0.3702
0.1440	57.2878	1.4792	-0.0874	0.3673
0.1500	58.1854	1.4658	-0.0919	0.3644
0.1560	58.9937	1.4522	-0.0961	0.3617
0.1620	59.7017	1.4378	-0.0996	0.3590
0.1680	60.3058	1.4213	-0.1023	0.3560
0.1740	60.8121	1.4020	-0.1047	0.3533
0.1800	61.2346	1.3875	-0.1068	0.3508
0.1860	61.5914	1.3854	-0.1082	0.3483
0.1920	61.8930	1.3889	-0.1091	0.3455
0.1980	62.1265	1.3822	-0.1089	0.3423
0.2040	62.2680	1.3638	-0.1070	0.3390
0.2100	62.3047	1.3492	-0.1047	0.3357
0.2160	62.2341	1.3446	-0.1026	0.3319
0.2220	62.0532	1.3378	-0.1011	0.3275
0.2280	61.7476	1.3194	-0.1000	0.3231
0.2340	61.2932	1.2969	-0.0990	0.3190
0.2400	60.6704	1.2788	-0.0973	0.3146
0.2460	59.8779	1.2620	-0.0947	0.3091
0.2520	58.9344	1.2423	-0.0912	0.3027
0.2580	57.8690	1.2217	-0.0869	0.2958
0.2640	56.7107	1.2009	-0.0823	0.2885
0.2700	55.4798	1.1745	-0.0781	0.2809
0.2760	54.1885	1.1391	-0.0737	0.2732
0.2820	52.8562	1.1023	-0.0691	0.2657
0.2880	51.5133	1.0742	-0.0657	0.2591
0.2940	50.1806	1.0534	-0.0639	0.2532
0.3000	48.8591	1.0313	-0.0624	0.2475
0.3060	47.5395	1.0058	-0.0600	0.2422
0.3120	46.2130	0.9811	-0.0568	0.2375
0.3180	44.8763	0.9585	-0.0534	0.2335
0.3240	43.5356	0.9362	-0.0491	0.2300
0.3300	42.2160	0.9167	-0.0433	0.2271
0.3360	40.9619	0.9058	-0.0364	0.2251
0.3420	39.8173	0.9030	-0.0292	0.2244
0.3480	38.8043	0.9024	-0.0220	0.2251
0.3540	37.9194	0.9020	-0.0154	0.2275
0.3600	37.1437	0.9047	-0.0096	0.2319
0.3660	36.4604	0.9144	-0.0059	0.2382
0.3720	35.8642	0.9340	-0.0052	0.2460
0.3780	35.3576	0.9641	-0.0068	0.2543
0.3840	34.9457	1.0004	-0.0090	0.2625
0.3900	34.6355	1.0357	-0.0107	0.2703
0.3960	34.4315	1.0661	-0.0116	0.2779
0.4020	34.3310	1.0924	-0.0126	0.2858

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	42.8834	1.2660	-0.0178	0.3140
0.0180	42.9802	1.2788	-0.0155	0.3176
0.0360	43.0784	1.2929	-0.0150	0.3209
0.0540	43.1826	1.3000	-0.0139	0.3226
0.0720	43.2856	1.3047	-0.0165	0.3256
0.0900	43.4171	1.3203	-0.0181	0.3273
0.1080	43.5797	1.3184	-0.0191	0.3263
0.1260	43.8717	1.3097	-0.0208	0.3245
0.1440	44.2839	1.3040	-0.0232	0.3247
0.1620	44.8209	1.3179	-0.0250	0.3249
0.1800	45.4008	1.3028	-0.0267	0.3241
0.1980	45.9707	1.2980	-0.0298	0.3227
0.2160	46.6332	1.2984	-0.0330	0.3216
0.2340	47.2251	1.2919	-0.0391	0.3202
0.2520	47.8934	1.2950	-0.0433	0.3185
0.2700	48.5695	1.2800	-0.0439	0.3173
0.2880	49.1338	1.2806	-0.0478	0.3183
0.3060	49.7367	1.2862	-0.0492	0.3158
0.3240	50.2372	1.2550	-0.0518	0.3146
0.3420	50.7780	1.2725	-0.0576	0.3149
0.3600	51.3270	1.2539	-0.0591	0.3127
0.3780	51.7271	1.2442	-0.0649	0.3129
0.3960	52.2630	1.2566	-0.0711	0.3137
0.4140	52.7615	1.2496	-0.0742	0.3143
0.4320	53.1246	1.2559	-0.0776	0.3145
0.4500	53.6398	1.2648	-0.0799	0.3149
0.4680	54.1943	1.2636	-0.0817	0.3151
0.4860	54.5045	1.2532	-0.0839	0.3142
0.5040	54.6708	1.2486	-0.0854	0.3118
0.5220	54.7938	1.2424	-0.0869	0.3116
0.5400	54.8961	1.2472	-0.0881	0.3108
0.5580	54.9903	1.2417	-0.0880	0.3095
0.5760	55.0522	1.2360	-0.0882	0.3094
0.5940	55.0568	1.2409	-0.0880	0.3083
0.6120	55.0175	1.2277	-0.0863	0.3054
0.6300	54.9459	1.2181	-0.0850	0.3031
0.6480	54.8828	1.2114	-0.0847	0.3007
0.6660	54.8234	1.2019	-0.0835	0.2982
0.6840	54.6875	1.1879	-0.0826	0.2952
0.7020	54.4572	1.1731	-0.0828	0.2924
0.7200	54.1385	1.1676	-0.0814	0.2902
0.7380	53.6511	1.1537	-0.0791	0.2876
0.7560	53.0251	1.1436	-0.0784	0.2849
0.7740	52.4833	1.1492	-0.0773	0.2834
0.7920	51.8760	1.1340	-0.0739	0.2810
0.8100	51.2359	1.1293	-0.0729	0.2793
0.8280	50.7417	1.1233	-0.0702	0.2771
0.8460	50.1334	1.1077	-0.0683	0.2778
0.8640	49.5713	1.1285	-0.0661	0.2773
0.8820	49.0631	1.1103	-0.0612	0.2766
0.9000	48.4645	1.1288	-0.0564	0.2772
0.9180	47.9165	1.1203	-0.0480	0.2763
0.9360	47.2275	1.1233	-0.0407	0.2788
0.9540	46.6015	1.1474	-0.0327	0.2808
0.9720	46.0200	1.1461	-0.0293	0.2846
0.9900	45.5051	1.1680	-0.0298	0.2885
1.0080	45.0779	1.1781	-0.0277	0.2925
1.0260	44.6521	1.1908	-0.0267	0.2961
1.0440	44.3093	1.2066	-0.0228	0.2989
1.0620	43.9148	1.2164	-0.0202	0.3024
1.0800	43.5875	1.2343	-0.0188	0.3074
1.0980	43.3316	1.2541	-0.0170	0.3131
1.1160	43.1147	1.2741	-0.0164	0.3158
1.1340	42.9867	1.2782	-0.0167	0.3162
1.1520	42.9055	1.2745	-0.0178	0.3165

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 40 deg.
 Alpha Max. = 56 deg.

Time	Alpha	CN	Cm	Cl
0.0000	42.9515	1.1663	-0.0199	0.2950
0.0060	42.9756	1.1759	-0.0208	0.2997
0.0120	43.0251	1.1856	-0.0220	0.3052
0.0180	43.1028	1.2050	-0.0228	0.3110
0.0240	43.2234	1.2330	-0.0229	0.3164
0.0300	43.4041	1.2609	-0.0225	0.3210
0.0360	43.6539	1.2838	-0.0216	0.3251
0.0420	43.9719	1.3016	-0.0203	0.3287
0.0480	44.3566	1.3140	-0.0200	0.3323
0.0540	44.8031	1.3249	-0.0214	0.3362
0.0600	45.3038	1.3417	-0.0232	0.3399
0.0660	45.8546	1.3634	-0.0254	0.3429
0.0720	46.4493	1.3818	-0.0282	0.3453
0.0780	47.0695	1.3938	-0.0315	0.3470
0.0840	47.6915	1.4001	-0.0347	0.3479
0.0900	48.2993	1.4023	-0.0382	0.3482
0.0960	48.8848	1.4020	-0.0422	0.3482
0.1020	49.4440	1.4001	-0.0459	0.3476
0.1080	49.9811	1.3980	-0.0492	0.3464
0.1140	50.5029	1.3938	-0.0529	0.3448
0.1200	51.0096	1.3846	-0.0560	0.3429
0.1260	51.5023	1.3732	-0.0584	0.3406
0.1320	51.9860	1.3642	-0.0612	0.3385
0.1380	52.4570	1.3574	-0.0640	0.3366
0.1440	52.9048	1.3490	-0.0663	0.3346
0.1500	53.3223	1.3392	-0.0690	0.3329
0.1560	53.6997	1.3325	-0.0723	0.3318
0.1620	54.0241	1.3290	-0.0753	0.3304
0.1680	54.2895	1.3220	-0.0781	0.3289
0.1740	54.4944	1.3108	-0.0808	0.3274
0.1800	54.6424	1.3016	-0.0828	0.3259
0.1860	54.7493	1.2985	-0.0845	0.3242
0.1920	54.8322	1.2981	-0.0860	0.3223
0.1980	54.8975	1.2939	-0.0867	0.3202
0.2040	54.9450	1.2859	-0.0865	0.3182
0.2100	54.9725	1.2798	-0.0861	0.3161
0.2160	54.9731	1.2743	-0.0856	0.3138
0.2220	54.9403	1.2645	-0.0846	0.3109
0.2280	54.8757	1.2527	-0.0835	0.3079
0.2340	54.7806	1.2440	-0.0834	0.3053
0.2400	54.6452	1.2376	-0.0838	0.3027
0.2460	54.4512	1.2284	-0.0842	0.2998
0.2520	54.1792	1.2135	-0.0844	0.2969
0.2580	53.8159	1.1966	-0.0835	0.2937
0.2640	53.3674	1.1830	-0.0813	0.2900
0.2700	52.8586	1.1726	-0.0790	0.2861
0.2760	52.3144	1.1618	-0.0766	0.2823
0.2820	51.7504	1.1483	-0.0740	0.2786
0.2880	51.1770	1.1335	-0.0718	0.2756
0.2940	50.5982	1.1204	-0.0706	0.2731
0.3000	50.0107	1.1076	-0.0696	0.2708
0.3060	49.4156	1.0961	-0.0685	0.2685
0.3120	48.8195	1.0875	-0.0674	0.2662
0.3180	48.2245	1.0777	-0.0660	0.2638
0.3240	47.6284	1.0640	-0.0632	0.2614
0.3300	47.0380	1.0490	-0.0591	0.2591
0.3360	46.4710	1.0379	-0.0551	0.2578
0.3420	45.9424	1.0327	-0.0517	0.2577
0.3480	45.4589	1.0318	-0.0484	0.2587
0.3540	45.0231	1.0353	-0.0446	0.2605
0.3600	44.6375	1.0461	-0.0398	0.2626
0.3660	44.3030	1.0611	-0.0346	0.2648
0.3720	44.0124	1.0715	-0.0295	0.2670
0.3780	43.7553	1.0760	-0.0250	0.2695
0.3840	43.5250	1.0818	-0.0216	0.2729
0.3900	43.3225	1.0934	-0.0191	0.2768
0.3960	43.1567	1.1082	-0.0179	0.2808
0.4020	43.0377	1.1239	-0.0178	0.2851
0.4080	42.9689	1.1421	-0.0182	0.2896
0.4140	42.9471	1.1610	-0.0188	0.2941

Cranked Wing
ADF Wind Tunnel
Velocity = 103.800 ft/s.

Red. Freq. = 0.0275
Alpha Min. = 48 deg.
Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	50.2505	1.1597	-0.0595	0.2877
0.0180	50.2792	1.1627	-0.0563	0.2900
0.0360	50.3237	1.1672	-0.0576	0.2929
0.0540	50.3918	1.1794	-0.0601	0.2947
0.0720	50.4758	1.1784	-0.0598	0.2957
0.0900	50.5736	1.1850	-0.0610	0.2981
0.1080	50.7004	1.1932	-0.0635	0.2999
0.1260	50.9141	1.1980	-0.0637	0.3005
0.1440	51.2517	1.1971	-0.0646	0.3014
0.1620	51.5959	1.1929	-0.0689	0.3044
0.1800	51.9947	1.2049	-0.0709	0.3069
0.1980	52.5720	1.2240	-0.0724	0.3085
0.2160	53.1321	1.2170	-0.0740	0.3085
0.2340	53.6338	1.2188	-0.0782	0.3101
0.2520	54.3963	1.2421	-0.0827	0.3115
0.2700	54.9900	1.2126	-0.0854	0.3125
0.2880	55.5722	1.2375	-0.0912	0.3143
0.3060	56.3296	1.2362	-0.0934	0.3150
0.3240	56.8750	1.2236	-0.0948	0.3164
0.3420	57.6600	1.2569	-0.0974	0.3185
0.3600	58.4120	1.2295	-0.0973	0.3197
0.3780	58.8799	1.2461	-0.0999	0.3209
0.3960	59.5966	1.2669	-0.1004	0.3222
0.4140	60.1150	1.2409	-0.1009	0.3245
0.4320	60.5961	1.2627	-0.1034	0.3246
0.4500	61.3106	1.2713	-0.1032	0.3236
0.4680	61.7418	1.2545	-0.1025	0.3234
0.4860	62.0793	1.2586	-0.1037	0.3224
0.5040	62.4943	1.2531	-0.1048	0.3227
0.5220	63.0205	1.2708	-0.1061	0.3227
0.5400	63.5032	1.2670	-0.1063	0.3224
0.5580	63.6930	1.2602	-0.1066	0.3214
0.5760	63.7620	1.2542	-0.1062	0.3194
0.5940	63.7850	1.2440	-0.1059	0.3178
0.6120	63.7842	1.2442	-0.1053	0.3165
0.6300	63.7388	1.2355	-0.1040	0.3149
0.6480	63.5935	1.2346	-0.1019	0.3138
0.6660	63.4170	1.2313	-0.1007	0.3117
0.6840	63.2821	1.2221	-0.1012	0.3094
0.7020	63.1226	1.2137	-0.1008	0.3077
0.7200	62.9309	1.2146	-0.0990	0.3061
0.7380	62.5366	1.2057	-0.0976	0.3044
0.7560	61.8647	1.1852	-0.0950	0.3007
0.7740	61.2593	1.1822	-0.0938	0.2979
0.7920	60.7317	1.1646	-0.0904	0.2947
0.8100	60.0667	1.1513	-0.0907	0.2922
0.8280	59.4442	1.1614	-0.0896	0.2888
0.8460	58.7349	1.1288	-0.0871	0.2864
0.8640	57.9660	1.1370	-0.0870	0.2855
0.8820	57.3357	1.1278	-0.0842	0.2835
0.9000	56.5934	1.1203	-0.0838	0.2833
0.9180	55.9668	1.1339	-0.0824	0.2808
0.9360	55.2818	1.0919	-0.0796	0.2783
0.9540	54.5512	1.1142	-0.0806	0.2787
0.9720	53.9310	1.0957	-0.0786	0.2770
0.9900	53.2185	1.0956	-0.0775	0.2780
1.0080	52.7101	1.1125	-0.0776	0.2787
1.0260	52.2456	1.0975	-0.0768	0.2776
1.0440	51.7246	1.0964	-0.0762	0.2759
1.0620	51.3566	1.1031	-0.0758	0.2770
1.0800	51.1247	1.1051	-0.0747	0.2782
1.0980	50.9012	1.1117	-0.0749	0.2809
1.1160	50.6952	1.1268	-0.0740	0.2826
1.1340	50.4936	1.1291	-0.0709	0.2834
1.1520	50.3095	1.1402	-0.0678	0.2850
1.1700	50.2383	1.1511	-0.0630	0.2859

Cranked Wing
 ADF Wind Tunnel
 Velocity = 103.800 ft/s.

Red. Freq. = 0.0779
 Alpha Min. = 48 deg.
 Alpha Max. = 64 deg.

Time	Alpha	CN	Cm	Cl
0.0000	50.0830	1.1210	-0.0770	0.2810
0.0060	50.1055	1.1319	-0.0766	0.2836
0.0120	50.1742	1.1391	-0.0758	0.2864
0.0180	50.2819	1.1449	-0.0750	0.2893
0.0240	50.4285	1.1540	-0.0741	0.2923
0.0300	50.6215	1.1666	-0.0737	0.2952
0.0360	50.8710	1.1778	-0.0734	0.2979
0.0420	51.1873	1.1889	-0.0729	0.3005
0.0480	51.5781	1.2051	-0.0724	0.3031
0.0540	52.0396	1.2206	-0.0720	0.3052
0.0600	52.5567	1.2248	-0.0722	0.3073
0.0660	53.1117	1.2219	-0.0729	0.3096
0.0720	53.6983	1.2270	-0.0744	0.3121
0.0780	54.3196	1.2441	-0.0773	0.3147
0.0840	54.9701	1.2599	-0.0806	0.3167
0.0900	55.6364	1.2663	-0.0834	0.3184
0.0960	56.3037	1.2703	-0.0860	0.3201
0.1020	56.9574	1.2758	-0.0888	0.3217
0.1080	57.5885	1.2792	-0.0917	0.3229
0.1140	58.1952	1.2803	-0.0945	0.3238
0.1200	58.7815	1.2832	-0.0971	0.3244
0.1260	59.3510	1.2893	-0.0996	0.3247
0.1320	59.9011	1.2931	-0.1015	0.3248
0.1380	60.4245	1.2920	-0.1029	0.3248
0.1440	60.9135	1.2934	-0.1040	0.3252
0.1500	61.3579	1.2970	-0.1049	0.3255
0.1560	61.7487	1.2922	-0.1058	0.3256
0.1620	62.0854	1.2814	-0.1065	0.3257
0.1680	62.3845	1.2795	-0.1071	0.3259
0.1740	62.6733	1.2911	-0.1081	0.3258
0.1800	62.9639	1.3031	-0.1092	0.3251
0.1860	63.2391	1.3029	-0.1093	0.3240
0.1920	63.4654	1.2902	-0.1085	0.3229
0.1980	63.6143	1.2744	-0.1076	0.3220
0.2040	63.6781	1.2653	-0.1064	0.3211
0.2100	63.6771	1.2657	-0.1049	0.3197
0.2160	63.6435	1.2708	-0.1037	0.3181
0.2220	63.5925	1.2728	-0.1026	0.3164
0.2280	63.5182	1.2689	-0.1012	0.3146
0.2340	63.4057	1.2620	-0.1006	0.3131
0.2400	63.2360	1.2546	-0.1012	0.3121
0.2460	62.9902	1.2488	-0.1025	0.3113
0.2520	62.6579	1.2482	-0.1030	0.3099
0.2580	62.2415	1.2506	-0.1016	0.3073
0.2640	61.7515	1.2430	-0.0985	0.3036
0.2700	61.2002	1.2215	-0.0952	0.2999
0.2760	60.5984	1.1995	-0.0926	0.2971
0.2820	59.9571	1.1872	-0.0908	0.2948
0.2880	59.2901	1.1805	-0.0898	0.2923
0.2940	58.6120	1.1725	-0.0887	0.2895
0.3000	57.9374	1.1644	-0.0868	0.2865
0.3060	57.2766	1.1579	-0.0850	0.2836
0.3120	56.6256	1.1459	-0.0837	0.2808
0.3180	55.9716	1.1258	-0.0821	0.2781
0.3240	55.3129	1.1108	-0.0803	0.2760
0.3300	54.6630	1.1005	-0.0790	0.2743
0.3360	54.0401	1.0949	-0.0780	0.2724
0.3420	53.4622	1.0911	-0.0769	0.2705
0.3480	52.9410	1.0856	-0.0758	0.2692
0.3540	52.4770	1.0824	-0.0748	0.2685
0.3600	52.0619	1.0766	-0.0741	0.2681
0.3660	51.6908	1.0675	-0.0741	0.2682
0.3720	51.3673	1.0667	-0.0748	0.2692
0.3780	51.0967	1.0812	-0.0756	0.2703
0.3840	50.8771	1.0982	-0.0758	0.2707
0.3900	50.6975	1.1004	-0.0751	0.2706
0.3960	50.5433	1.0905	-0.0741	0.2709
0.4020	50.4043	1.0838	-0.0736	0.2723
0.4080	50.2798	1.0873	-0.0742	0.2745
0.4140	50.1788	1.0972	-0.0755	0.2769
0.4200	50.1144	1.1100	-0.0766	0.2795